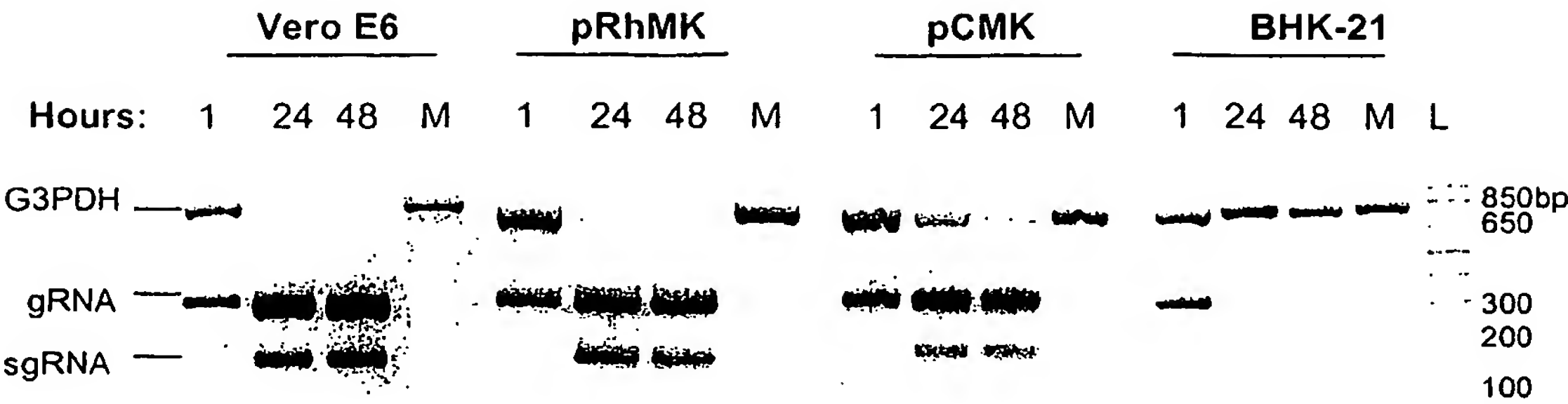


FIG. 1

A.



B.

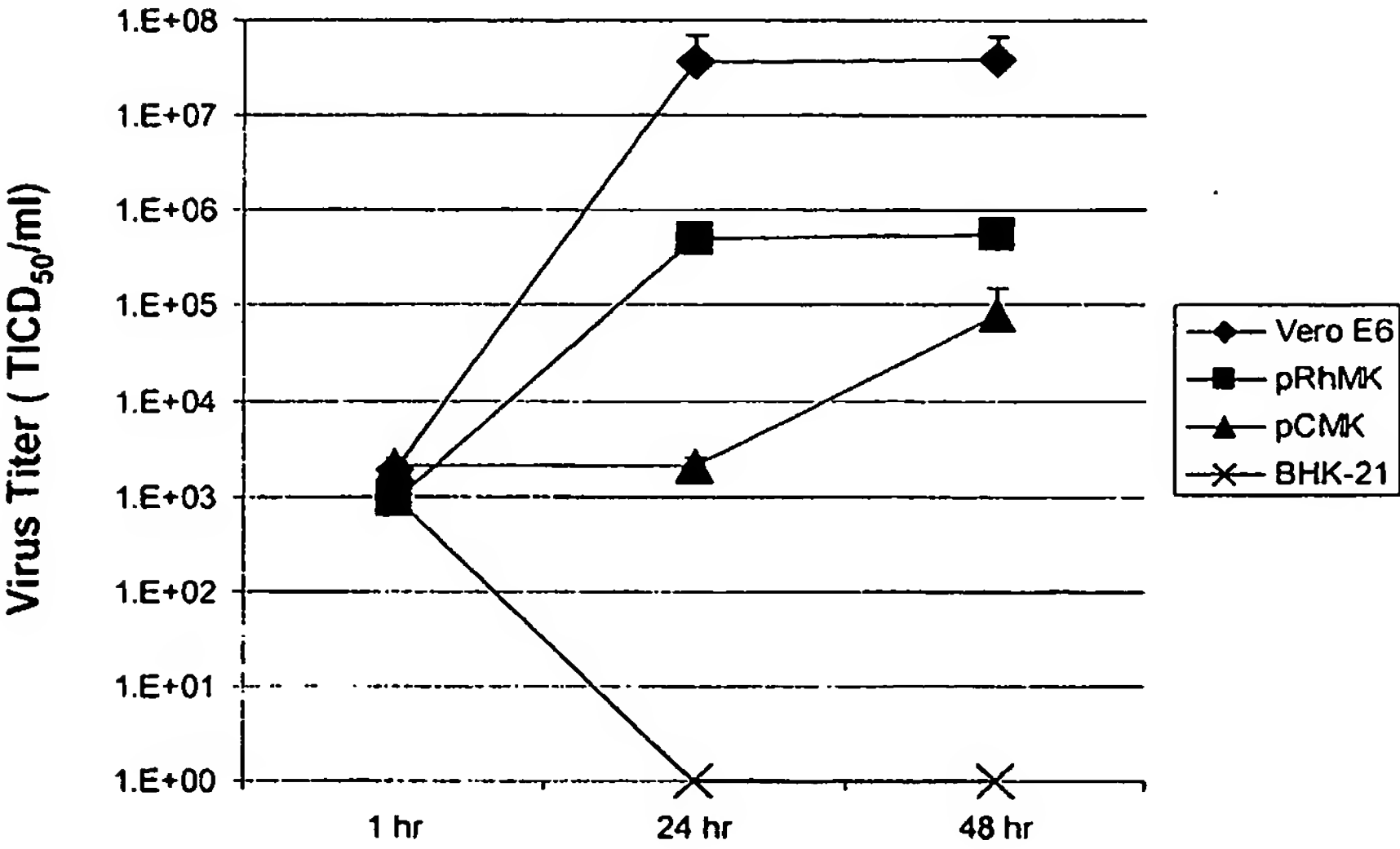


FIG. 2.

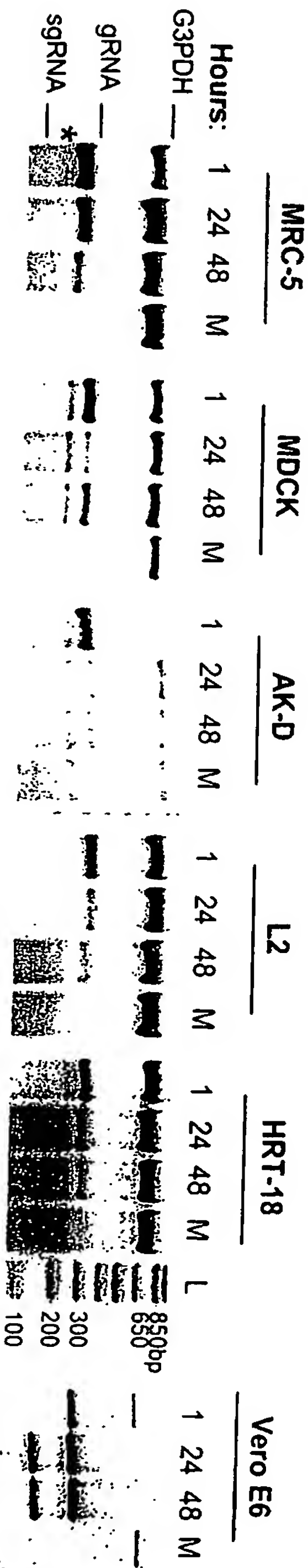


FIG. 3.

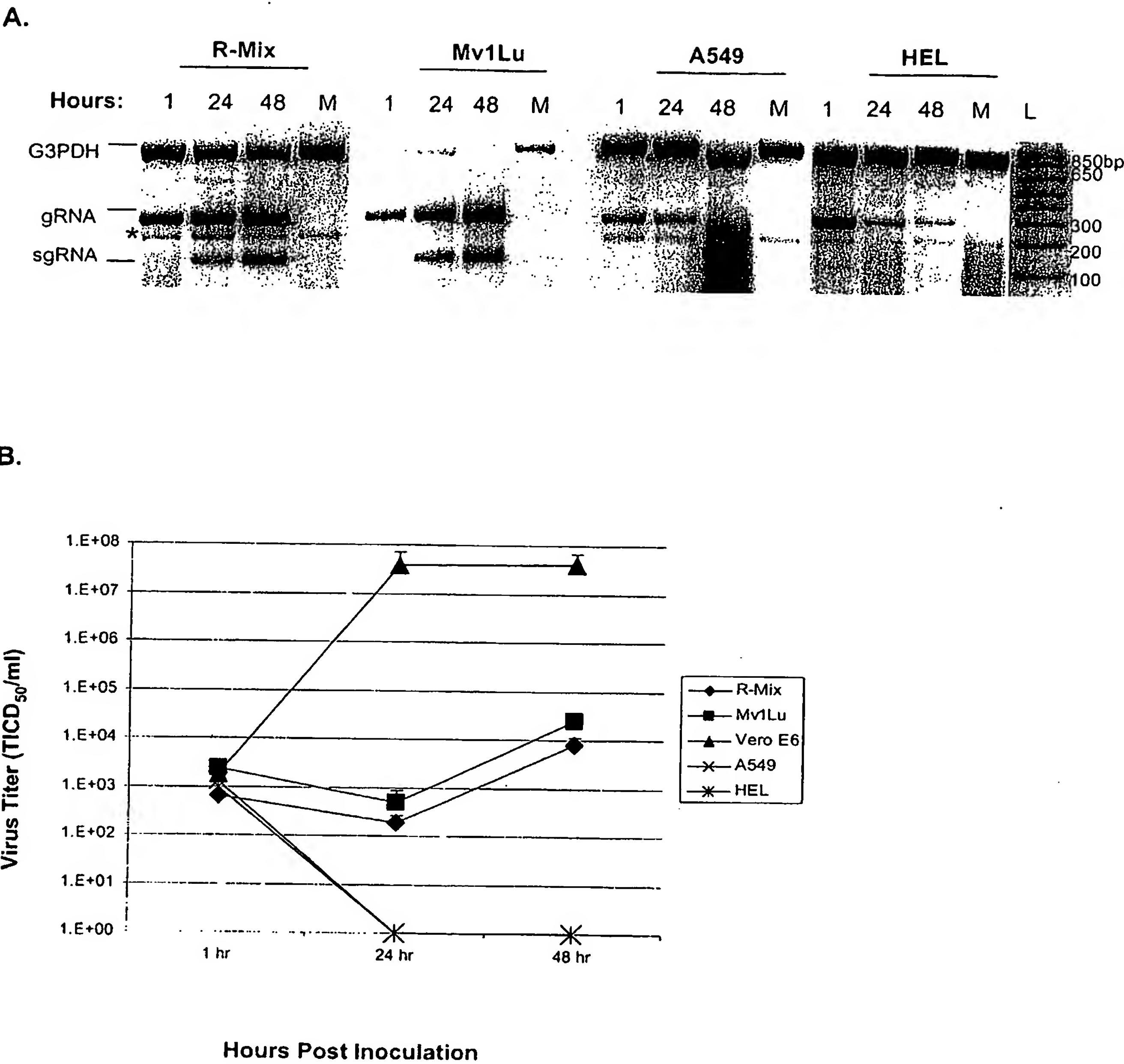
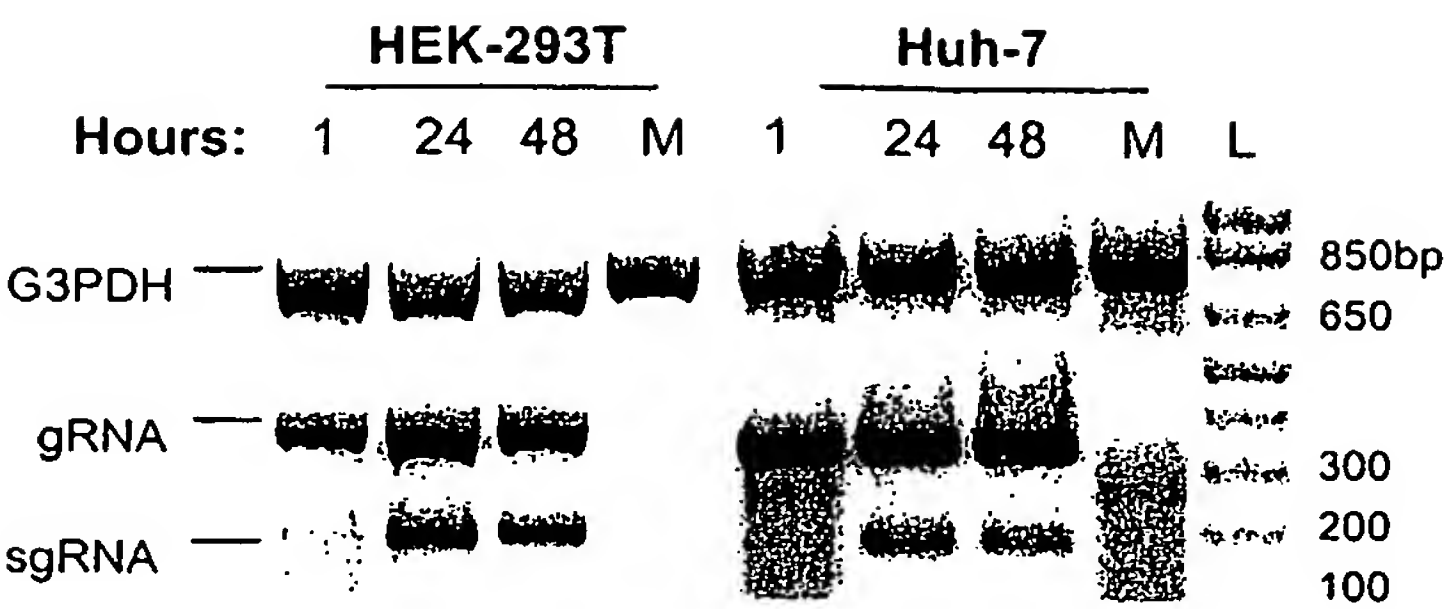


FIG. 4.

A.



B.

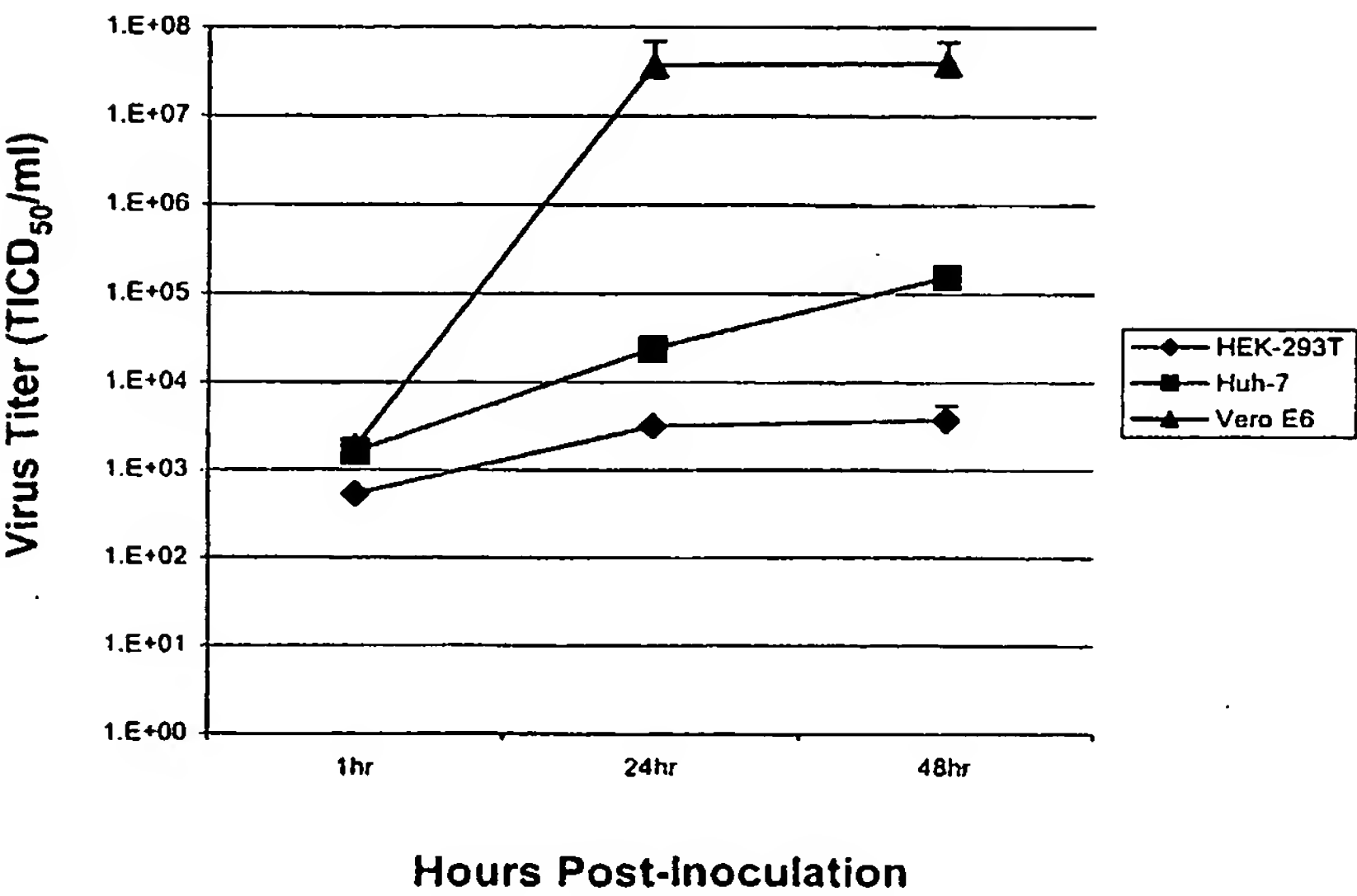
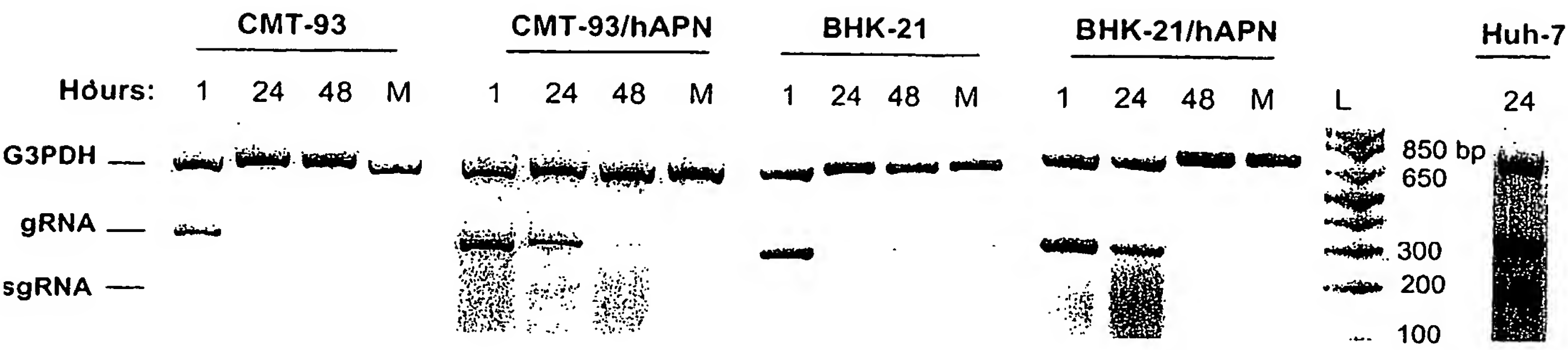


FIG. 5.

A.



B.

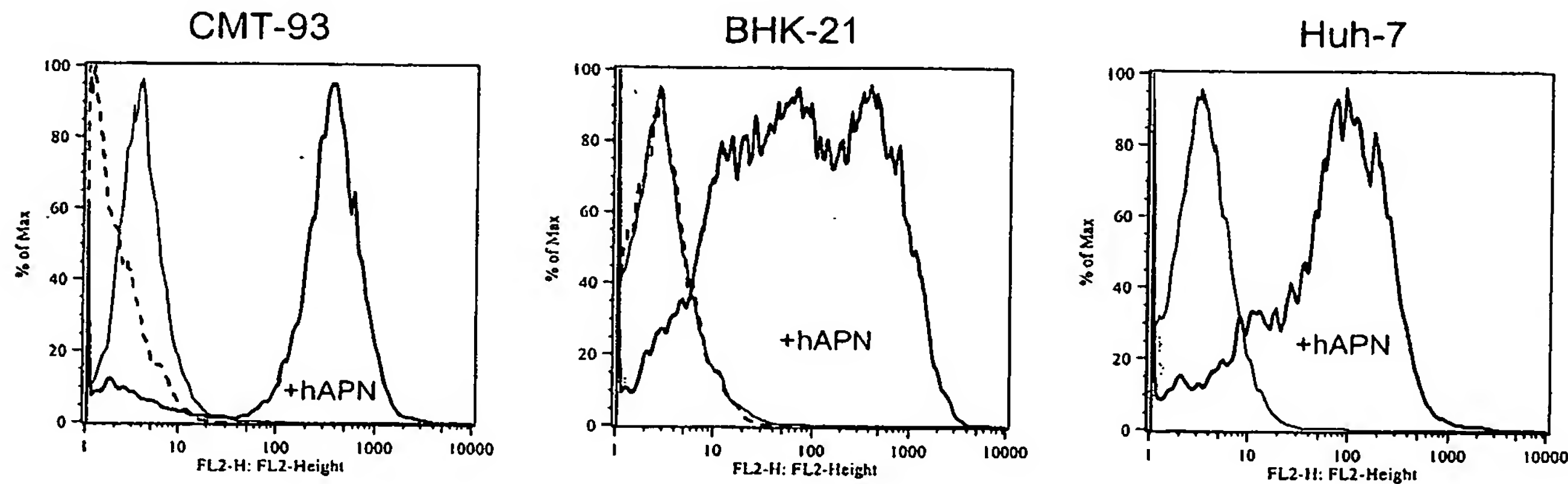


FIG. 6.

FIGURE 7A

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FIGURE 7B

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FIGURE 7C

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FIGURE 7D

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FIGURE 7E

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FIGURE 7F

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FIGURE 7G

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25861 agactatgtc gttgtacatg gctatttcac cgaagtttac taccagcttg agtctacaca

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FIGURE 7H

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25921 aattactaca gacactggta ttgaaaatgc tacattcttc atctttaaca agcttggttaa
25981 agacccaccg aatgtgcaaa tacacacaat cgacggctct tcaggagttg ctaatccagc
26041 aatggatcca atttatgatg agccgacgac gactactagc gtgcctttgt aagcacaaga
26101 aagtgagtac gaacttatgt actcattcgt ttcggaagaa acaggtagct taatagttaa
26161 tagcgtactt ctttttcttg ctttcgtggg attcttgcta gtcacactag ccatccttac
26221 tgcgcttcga ttgtgtgcgt actgctgcaa tattgttaac gtgagtttag taaaaccaac
26281 ggtttacgtc tactcgcggtg ttaaaaatct gaactcttct gaaggagttc ctgatcttct
26341 ggtctaaacg aactaactat tattattatt ctgtttggaa ctttaacatt gcttatcatg
26401 gcagacaacg gtactattac cgttgaggag cttaaacaac tcctggaaca atggaaccta
26461 gtaatagggt tcctattcct agcctggatt atgttactac aatttgccta ttctaactcg
26521 aacaggtttt tgtacataat aaagcttggt ttctctggc tcttggtggc agtaaacactt
26581 gcttgttttg tgcttgctgc tgtctacaga attaattggg tgactggcgg gattgcgatt
26641 gcaatggctt gtattgtagg cttgatgtgg cttagctact tcgttgcttc cttcaggctg
26701 tttgctcgta cccgctcaat gtggctattc aaccagaaa caaacattct tctcaatgtg
26761 cctctccggg ggacaattgt gaccagaccg ctcattgaaa gtgaacttgt cattggtgct
26821 gtgatcattc gtggtcactt gcgaatggcc ggacaccccc tagggcgctg tgacattaag
26881 gacctgccaa aagagatcac tgtggctaca tcacgaacgc tttcttatta caaattagga
26941 gcgtcgcagc gtgtaggcac tgattcaggt tttgctgcat acaaccgcta ccgtattgga
27001 aactataaat taaatacaga ccacgccggt agcaacgaca atattgcttt gctagtacag
27061 taagtgacaa cagatgtttc atcttggtga cttccaggtt acaatagcag agatattgat
27121 tatcattatg aggactttca ggattgctat ttggaatctt gacgttataa taagttcaat
27181 agtgagacaa ttatttaagc ctctaactaa gaagaattat tcggagttag atgatgaaga
27241 acctatggag ttagattatc cataaaacga acatgaaaat tattctcttc ctgacattga
27301 ttgtatttac atcttgcgag ctatatcact atcaggagtg tgttagaggt acgactgtac
27361 tactaaaaga accttgccca tcaggaacat acgagggcaa ttcaccattt caccctcttg
27421 ctgacaataa atttgcacta acttgcaacta gcacacactt tgcttttgct tgtgctgacg
27481 gtactcgaca tacctatcag ctgctgcaaa gatcagtttc accaaaactt ttcattagac
27541 aagaggaggt tcaacaagag ctctactcgc cactttttct cattgttgct gctctagtat
27601 ttttaatact ttgcttcacc attaagagaa agacagaatg aatgagctca ctttaattga
27661 cttctatttg tgctttttag cctttctgct attccttggt ttaataatgc ttattatatt
27721 ttggttttca ctcgaaatcc aggatctaga agaacctgt accaaagtct aaacgaacat
27781 gaaacttctc attgttttga cttgtatttc tctatgcagt tgcatatgca ctgtagtaca
27841 gcgtgtgca tctaataaac ctcatgtgct tgaagatcct tgtaaggtag aacactaggg
27901 gtaataacta tagcactgct tggctttgtg ctctaggaaa ggttttacct tttcatagat
27961 ggcacactat ggttcaaaca tgcacaccta atgttactat caactgtcaa gatccagctg
28021 gtggtgctgt tatagctagg tgttggtacc ttcattgaagg tcaccaaact gctgcattta
28081 gagacgtact tgttgtttta aataaacgaa caaattaaaa tgtctgataa tggaccccaa
28141 tcaaaccaac gtagtgcccc ccgcattaca tttggtggac ccacagattc aactgacaat
28201 aaccagaatg gaggacgcaa tggggcaagg ccaaaacagc gccgacccca aggtttaccc
28261 aataatactg cgtcttggtt cacagctctc actcagcatg gcaaggagga acttagattc
28321 cctcgaggcc agggcggttc aatcaacacc aatagtggct cagatgacca aattggctac
28381 taccgaagag ctacccgacg agttcgtggt ggtgacggca aaatgaaaga gctcagcccc
28441 agatggtact tctattacct aggaactggc ccagaagctt cacttcccta cggcgctaac
28501 aaagaaggca tcgtatgggt tgcaactgag ggagccttga atacacccaa agaccacatt
28561 ggcacccgca atcctaataa caatgctgcc accgtgctac aacttctca aggaacaaca
28621 ttgccaaaag gcttctacgc agagggaagc agaggcgga gtcaagcctc ttctcgctcc
28681 tcatcacgta gtcgcggtaa ttcaagaaat tcaactcctg gcagcagtag gggaaattct
28741 cctgctcgaa tggctagcgg aggtggtgaa actgccctcg cgctattgct gctagacaga
28801 ttgaaccagc ttgagagcaa agtttctggt aaaggccaac aacaacaagg ccaaactgtc
28861 actaagaaat ctgctgctga ggcattctaa aagcctcgcc aaaaacgtac tgccacaaaa
28921 cagtacaacg tcaactcaagc atttgggaga cgtggtccag aacaaacca aggaaatttc
28981 ggggaccaag acctaatcag acaaggaaat gattacaaac attggccgca aattgcacaa
29041 tttgctccaa gtgcctctgc attctttgga atgtcacgca ttggcatgga agtcacacct
29101 tcgggaacat ggctgactta tcatggagcc attaaattgg atgacaaaga tccacaattc
29161 aaagacaacg tcatactgct gaacaagcac attgacgcat acaaaacatt cccaccaaca
29221 gagcctaaaa aggacaaaaa gaaaaagact gatgaagctc agcctttgcc gcagagacaa
29281 aagaagcagc ccactgtgac tcttcttctt gcggctgaca tggatgattt ctccagacaa
29341 cttcaaaaatt ccatgagtgg agcttctgct gattcaactc aggcataaac actcatgatg
29401 accacacaag gcagatgggc tatgtaaacg ttttcgcaat tccgtttacg atacatagtc
29461 tactcttggt cagaatgaat tctcgtaact aaacagcaca agtaggttta gttaacttta
29521 atctcacata gcaatcttta atcaatgtgt aacattaggg aggacttgaa agagccacca
29581 cattttcatc gaggccacgc ggagtacgat cgagggtaca gtgaataatg ctagggagag

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FIGURE 7I

29641 ctgcctatat ggaagagccc taatgtgtaa aattaatttt agtagtgcta tccccatgtg
29701 attttaatag cttcttagga gaatgac

FIGURE 8 A

1 atattagggtt ttacctacc caggaaaagc caaccaacct cgatctcttg tagatctgtt
 61 ctctaaacga actttaaaat ctgtgtagct gtcgctcggc tgcagccta gtgcacctac
 121 gcagtataaa caataataaa ttttactgtc gttgacaaga aacgagtaac tcgtccctct
 181 tctgcagact gcttacgggt tcgtccgtgt tgcagtcgat catcagcata cctaggtttc
 241 gtccgggtgt gaccgaaagg taagatggag agccitgttc ttggtgtcaa cgagaaaaca
 301 cacgtccaac tcagtttgcc tgccttcag gttagagacg tgctagtgcg tggcttcggg
 361 gactctgtgg aagaggccct atcggaggca cgtgaacacc tcaaaaatgg cacttgtgtt
 421 ctatagagc tggaaaaagg cgtactgcc cagctigaac agccctatgt gttcattaaa
 481 cgttctgatg ccttaagcac caatcacggc cacaaggctg ttgagctggt tgcagaaatg
 541 gacggcattc agtacggctg tagcgggata acactgggag tactcgtgcc acatgtgggc
 601 gaaaccccaa ttgcataccg caatgttctt ctctgtaaga acggtataa gggagccggt
 661 ggtcatagct atggcatcga tctaaagtct tatgacttag gtgacgagct tggcactgat
 721 cccattgaag attatgaaca aaactggaac actaagcatg gcagtgggtc actccgtgaa
 781 ctactcgtg agctcaatgg aggtgcagtc actcgtatg tcgacaacaa ttctgtggc
 841 ccagatgggt accctctga ttgcataaa gattttctg cacgcgcggg caagtcaatg
 901 tgcactctt ccgaacaact tgattacac gattcgaaga gaggtgcta ctgtgccgt
 961 gaccatgagc atgaaattgc ctggttact gagcgtctg ataagagcta cgagcaccag
 1021 acacccttcg aaattaagag tgccaagaaa ttgacactt tcaaagggga atgcccagg
 1081 ttgtgttct ctcttaactc aaaagtcaa gtcattcaac cacgtgtga aaagaaaag
 1141 actgagggtt tcatggggcg tatacgtctt gtgtacctg ttgcatctcc acaggagtgt
 1201 aacaatatgc acttgtctac ctgatgaaa tgaatcatt gcgatgaagt ttcatggcag
 1261 acgtgcgact ttctgaaagc cacttgtgaa catttgtgca ctgaaaatt agttattgaa
 1321 ggacctacta catgtgggta cctacctact aatgctgtag tgaatatgcc atgtcctgcc
 1381 tgtcaagacc cagagattgg acctgagcat agtgttgagc attatcaca ccaactcaac
 1441 attgaaactc gactccgcaa gggaggtagg actagatgtt ttggaggctg tgtgttgcc
 1501 tatgttggt gctataataa gcgtgcctac tgggttctc gtgctagtgc tgatattggc
 1561 tcaggccata ctggcattac tggtgacaat gtggagacct tgaatgagga tctccttgag
 1621 atactgagtc gtgaacgtgt taacattaac attgttgccg atttcatit gaatgaagag
 1681 gttgccatca tttggcatc ttctctgtc tctacaagt ccttattga cactataaag
 1741 agtcttgatt acaagtctt caaaaccatt gttgagctc gcggtacta taaagttacc
 1801 aagggaagc ccgtaaaagg tgcttgaac attggacaac agagatcagt ttaacacca
 1861 ctgtgtggtt ttcctcaca ggctgtgtt gttatcagat caattttgc gcgcacactt
 1921 gatgcagcaa accactcaat tctgtattg caaagagcag ctgtcccat acttgatggt
 1981 atttctgaac agtcattacg tctgtcgac gccatgggtt atacttcaga cctgtcacc
 2041 aacagtgtca ttattatggc atatgtaact ggtggtctt tacaacagac ttctcagtgg
 2101 ttgtctaate ttttggcac tactgttgaa aaactcaggc ctatcttga atggattgag
 2161 gcgaaactta gtgcaggagt tgaattctc aaggatgctt gggagattct caaattctc
 2221 attacagggt ttttgacat cgtcaagggt caaatacagg ttgcttcaga taacatcaag
 2281 gattgtgtaa aatgcttcat tgatgtgtt aacaaggcac tcgaaatgt cattgatcaa
 2341 gtcactatcg ctggcgcaa gtgcgatca ctcaacttag gtgaagtct catcgctcaa
 2401 agcaagggac ttaccgtca gtgtatact ggcaaggagc agctgcaact actcatgcct
 2461 cttaggcac caaagaagt aaccttctt gaagggtatt cacatgacac agtacttacc
 2521 tctgaggagg ttgttctca gaacgggtga ctggaagcac tcgagacgcc cgttgatagc
 2581 ttcacaaatg gagctatctt tggcacacca gtctgtgtaa atggcctcat gctcttagag
 2641 attagagaca aagaacaata ctgcgcattg tctctgggt tactggctac aaacaatgtc
 2701 tttcgcttaa aagggggtgc accaatlaaa ggtgtaacct ttggagaaga tactgtttgg
 2761 gaagtcaag gttacaaga ttgagaatc acattgagc ttgatgaacg tgttgacaaa
 2821 gtgcttaatg aaaagtgtc tgtctacact gttgaatccg gtaccgaagt tactgagttt
 2881 gcatgtgtt tagcagaggc tgtgtgaag actttacaac cagtttctga tctccttacc
 2941 aacatgggta ttgatctga tgagtggagt gtagctacat tctacttatt tgatgatgct
 3001 ggtgaagaaa actttcatc acgtatgat tgttcttctt accctccaga tgaggaagaa

FIGURE 8 B

3061 gaggacgatg cagagtgtga ggaagaagaa attgatgaaa cctgtgaaca tgagtacggt
 3121 acagaggatg attatcaagg tctccctctg gaatttgggtg cctcagctga aacagttcga
 3181 gttgaggaag aagaagagga agactggctg gatgatacta ctgagcaatc agagattgag
 3241 ccagaaccag aacctacacc tgaagaacca gtaatcagt ttactgggta tttaaaactt
 3301 actgacaatg ttgccattaa atgtgttgac atcgtaagg aggcacaaag tgctaactct
 3361 atggtgattg taaatgctgc taacatacac ctgaaacatg gtgggtgggtg agcaggtgca
 3421 ctcaacaagg caaccaatgg tgccatgcaa aaggagagtg atgattacat taagctaaat
 3481 ggccctctta cagtaggagg gtcttgtttg ctttctggac ataactttgc taagaagtgt
 3541 ctgcatgttg ttggacctaa cctaaatgca ggtgaggaca tccagcttct taaggcagca
 3601 tatgaaaatt tcaattcaca ggacatctta ctgacccat tgttgcagc aggcataatt
 3661 ggtgctaaac cacttcagtc tttaacaagt tgcgtgcaga cggttcgtac acaggtttat
 3721 attgcagtc aagacaaagc tcttatgag caggttgta tggattatct tgataacctg
 3781 aagcctagag tggaagcacc taaacaagag gagccacca acacagaaga ttccaaaact
 3841 gaggagaaat ctgctgta gaagcctgct gatgtgaagc caaaaattaa ggcctgcatt
 3901 gatgaggta ccacaacact ggaagaaact aagtttctta ccaataagtt actcttgtt
 3961 gctgatatca atggttaagt ttacatgat tctcagaaca tgcttagagg tgaagatatg
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 4081 acttgtgttg taataccctc caaaaaggct ggtggcacta ctgagatgct ctcaagagct
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 4201 tatacacttg aggaagctaa gactgctctt aagaaatgca aatctgcatt ttatgtacta
 4261 ccttcagaag cacctaagc taaggaagag attctaggaa ctgtatcctg gaatttgaga
 4321 gaaatgcttg ctcatgctga agagacaaga aaattaatgc ctatatgcat ggtgttaga
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 4441 gactatggtg tccgattctt cttttatact agtaaagagc ctgtagcttc tattattacg
 4501 aagctgaact ctctaatga gccgtgtgc acaatgccaa ttggttatgt gacacatggt
 4561 tttaactctg aagaggctgc gcgctgatg cgttctctta aagctcctgc cgtagtgtca
 4621 gtatcatcac cagatgctgt tactacatat aatggatacc tcacttcgtc atcaaagaca
 4681 tctgaggagc actttgtaga aacagttctt ttggctggct ctacagaga ttggtcctat
 4741 tcaggacagc gtacagagtt aggtgttgaa ttcttaagc gtggtgacaa aattgtgtac
 4801 cacactctgg agagccccgt cgagttcat ctgacgggtg aggttcttc acttgacaaa
 4861 cttaagagtc tcttatccct gcgggagggt aagactataa aagtgttcac aactgtggac
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 5101 catactcttg atgagagttt tcttggtagg tacatgtctg cttaaacca cacaagaaa
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 5221 ttgtctagt tttattagc acttcaacag ctggaagtca aattcaatgc accagcactt
 5281 caagaggctt attatagagc ccgtgctggt gatgctgcta actttgtgc actcactc
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 5461 ggtcagaaaa ctactacctt aacgggtgta gaagctgtga tgtatatggg tactctatct
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 5581 tatctaglac aacaagagtc ttctttgtt atgatgtctg caccacctgc tgagtataaa
 5641 ttacagcaag gtacattctt atgtcgaaat gactacactg gtaactatca gtgtggtcat
 5701 tacactcata taactgctaa ggagacctc tatcgtattg acggagctca ccttacaag
 5761 atgtcagagt acaaggacc agtactgat gttttctaca aggaacatc ttacttaca
 5821 accatcaagc ctgtgtcgt taaactgat ggagttactt acacagagat tgaacaaaa
 5881 ttgatgggt attataaaaa ggataatgct tactatacag agcagcctat agaccttga
 5941 ccaactcaac cattacaaa tgcgagtttt gataattca aactcacatg tttaacaca
 6001 aaatttgctg atgattaaa tcaaatgaca ggcttcacaa agccagcttc acgagagcta
 6061 tctgtcacat tcttccaga ctgaaatggc gatgtagtgg ctattgacta tagacactat
 6121 tcagcgagtt tcaagaaagg tgctaaatta ctgcataagc caattgttg gcacattaac

FIGURE 8 C

6181 caggctacaa ccaagacaac gttcaaacca aacacttggg gttacgttg tctttggagt
 6241 acaaagccag tagatactc aaattcattt gaagtictgg cagtagaaga cacacaagga
 6301 atggacaatc ttgcttgtga aagicaacaa cccacctctg aagaagtagt ggaaaatcct
 6361 accatacaga aggaagtcac agagtgtgac gtgaaaacta ccgaagtgtg aggcaatgtc
 6421 atacttaaac catcagatga aggtgtttaa gtaacacaag agttaggtca tgaggatctt
 6481 atggctgctt atgtggaaaa cacaagcatt accattaaga aacctaata gctttcacta
 6541 gccttaggtt taaaaacaat tgccactcat ggtattgctg caatlaatag tgttccttgg
 6601 agtaaaattt tggcttatgt caaacattc ttaggacaag cagcaattac aacatcaaat
 6661 tgcgctaaga gattagcaca acgtgtgtt aacaattata tgcttatgt gtttacatta
 6721 ttgtccaat tgttacttt tactaaaagt accaattcta gaattagagc ttactacct
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 6901 ttaagtattt gcttaggttc tctaactgtt glaactgctg cttttgggtg actcttatct
 6961 aattttgggt ctccttctta ttgaatggc gtagagaat tgtatctaa ttcgtctaac
 7021 gttactacta tggatttctg tgaaggttct ttctcttga gcatttgtt aagtggatta
 7081 gactcccttg attctatcc agctcttga accattcagg tgacgattc atcgtacaag
 7141 ctgacttga caatttagg tctggccgct gagtgggtt tggcatatat gttgttcaca
 7201 aaattctttt atttattagg tcttcagct ataatgcagg tgttcttgg ctatttgc
 7261 agtcatttca tcagcaattc ttggctcatg tggtttatca ttagtattgt acaaatggca
 7321 cccgtttctg caatggtag gatgtacac ttcttgcct ctcttacta catatggaag
 7381 agctatgttc atatcatgga tggttgcacc tcttcgacti gcatgatgtg ctataagcgc
 7441 aatcgtgcca cagcgttga gtgtacaact attgttaatg gcatgaagag atctttctat
 7501 gtctatgcaa atggaggccg ttgcttctgc aagactcaca attggaattg tctcaattgt
 7561 gacacattt gactggtag tacattcatt agtgaagaag ttgctcgtga ttgtcactc
 7621 cagtttaaaa gaccaatcaa cctactgac cagtcacgt atattgtga tagtgttgc
 7681 gtgaaaaatg gcgcgttca cctctactt gacaaggctg gtcaaaagac ctatgagaga
 7741 catccgctct cccatttct caatttagac aatttagag ctacaacac taaaggttca
 7801 ctgcctatta atgtcatagt ttgtatggc aagtcacaa gcgacgagtc tgccttaag
 7861 tctgcttctg tgtactacag tcagctgatg tgccaacctt ttctgttgc tgaccaagct
 7921 ctgtatcag acgttgaga tagtactgaa gttccgtta agatgttga tgcctatgc
 7981 gacaccttt cagcaactt tagtgttct atggaaaaac ttaaggcact tgttgcata
 8041 gctcacagcg agttagcaaa ggggttagct ttagatgggt tctttctac attcgtgca
 8101 gctgcccagc aagggtgtgt galaccgat gttgacaaa aggatgttat tgaatgtct
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 8221 acctataata aggttgaaaa catgacgccc agagatctt gcgcatgtat tgactgtaat
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 8341 aaagactaca tgtctttat tgaacagct cgtaaacaaa ttcgtagtgc tgccaagaag
 8401 aacaacatac ctttagact aacttgtgt acaactagac aggttgtcaa tgcataact
 8461 actaaaatct cactcaaggg tggtaagatt gtagtactt gttttaaact tatgcttaag
 8521 gccacattat tgtgcgttct tgcgtcattg gttgttata tegtatgcc agtacatata
 8581 ttgtcaatcc atgatggta cacaatgaa atcattgggt acaaagccat tcaggatggt
 8641 gtcactcgtg acatcattc tactgatgat tgtttgcaa ataaacatgc tggtttgac
 8701 gcatggttta gccagcgtgg tggttcatc aaaaatgaca aaagctgccc ttagtagct
 8761 gctatcatta caagagagat tggttcata gtgcctggct taccgggtac tgtgctgaga
 8821 gcaatcaatg gtgacttct gcatttcta cctcgtgtt ttagtgcgt tggcaacatt
 8881 tgctacacac ctccaaact callagatag agtgatttg ctacctctgc ttgcgttct
 8941 gctgctgagt gtacaattt taaggatgct atgggcaaac ctgtccata ttgtatgac
 9001 actaattgc tagagggttc ttttcttat agtgagctc gtccagacac tegtatgtg
 9061 cttatggatg gtccatcat acagtttct aacacttacc tggagggtc tgttagagta
 9121 glaacaactt ttgatctga gtactgtaga catggtacat gcgaaaggct agaagtaggt
 9181 attgcctat ctaccagtgg tagatgggt cttaataatg agcattacag agctctatca
 9241 ggagtttct gtggtgtga tgcgatgaat ctcatagcta acatcttct tctcttctg

FIGURE 8 D

9301 caacctgtgg gtgcittaga tgtgtctgct tcagtagtgg ctgggtggat tatggcata
 9361 ttggtgactt gtgctgccta ctactttatg aaattcagac gtgttttgg tgagtacaac
 9421 catgttggtg ctgctaagtc acttttggtt ttgatgtctt tcactatact ctgtctggta
 9481 ccagcttaca gctttctgcc gggagctctac tcagtccttt acttgactt gacattctat
 9541 ttaccaatg atgtttcatt ctgggtcac cttaatggg ttgcatgtt ttctcctatt
 9601 gtgcctttt ggataacagc aatctatgta ttctgtatt ctctgaagca ctgccattgg
 9661 ttcttaaca actatcttag gaaaagagtc atgttaatg gagttacatt tagtaccttc
 9721 gaggaggctg ctttgtgtac cttttgtct aacaaggaaa tgtacctaaa attgcgtagc
 9781 gagacactgt tgccacttac acagtataac aggtatcttg ctctatataa caagtacaag
 9841 tatttcagtg gagccttaga tactaccagc tctgtgaag cagcttgctg ccacttagca
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 10021 gttgaagggt gcatggtaca agtaacctgt ggaactacaa ctctaatgg attgtggtg
 10081 gatgacacag tatactgtcc aagacatgtc atttgacag cagaagacat gcttaacct
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 10381 aatcatacca ttaaagggtc ttctctaat ggaatcatgt gtagtgttg tttaacatt
 10441 gattatgatt gcgtgtctt ctgctatag catcatatgg agctccaac aggagtacac
 10501 gctggtactg acttagaagg taaattctat ggtccattg ttgacagaca aactgcacag
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 10621 atcaatggtg ataggtggtt tctaataga ttcaccacta cttgaatga cttaacctt
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 10801 cagaatggtg tgaatggtc tactatctt ggtagcacta tttagaaga tgagttaca
 10861 ccatttgatg ttgtagaca atgctctgtt gttacctcc aaggttaagt caagaaaatt
 10921 gtttaaggga ctcattatg gatgcttta actttctga catcactatt gattctgtt
 10981 caaagtacac agtggctact gttttctt gttacgaga atgcttctt gccatttact
 11041 ctggtatta tggcaattgc tgcattgtct atgctgctt ttaagcataa gcacgcattc
 11101 ttgtgctgt ttctgttacc ttctctgca acagtgtct actttaatat ggtctacatg
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 11281 acagctcgca ctgtttatga tgatgtgt agacgtgtt ggacactgat gaatgtcatt
 11341 acattgttt acaaagtcta ctatggaat gcttagatc aagctattc catgtgggcc
 11401 ttatgtatt ctgtaacct taactattct ggtgtcgtta cgactatcat gttttagct
 11461 agagctatag ttttgtgt tttgagtat taccattgt tatttattac tggcaacacc
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 11581 ctttctgtt tactcaaccg ttacttcagg ctactctg gtgtttatga ctacttggc
 11641 tctacacaag aatttaggta tatgaacct caggggctt tgcctcctaa gagtagtatt
 11701 gatgcttca agcttaacat taagtgttg ggtattggag gtaaacatg tatcaagggt
 11761 gctactgtac agtctaaaat gtctgacgta aagtgcacat ctgtggtact gctctgggt
 11821 cttaacaac tttagagtag gctatctct aattgtggg cacaatgtg acaactccac
 11881 aatgatatt ttctgcaa agacacaact gaagcttct agaagatggt ttctctttg
 11941 tctgtttgc tatccatgca ggtgtctga gacattata ggtgtgca ggaatgctc
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 12061 gcttatgcca ctgccagga ggcctatgag caggctgtg ctaatggta ttctgaagtc
 12121 gttctaaaa agttaagaa atcttgaat gtggctaaat ctgagttga ccgtgatgt
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 12241 gcaagatctg aggacaagag ggcaaaagta actagtcta tgcaacaat gctcttact
 12301 atgcttagga agcttgataa tgatgcactt aacaacatta tcaacaatgc gcgtgatgt
 12361 tgtgtccac tcaacatcat accattgact acagcagcca aactcatggt tgtgtccct

FIGURE 8 E

12421 gattatggta cctacaagaa cacttgtgat ggtaacacct ttacatatgc atctgcactc
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 12541 atggacaatt caccaaattt ggcttggcct cttattgtta cagctctaag agccaactca
 12601 gctgttaaac tacagaataa tgaactgagt ccagtagcac tacgacagat gtcctgtgcg
 12661 gctggtagca cacaacagc ttgtactgat gacaatgcac ttgcctacta taacaattcg
 12721 aagggaggta ggtttgtgct ggcaattacta tcagaccacc aagatctcaa atgggctaga
 12781 ttccctaaga gtgatggtag aggtacaatt tacacagaac tgggaaccacc ttgtaggttt
 12841 gttacagaca caccaaaagg gcctaaagtg aaatacttgt acttcatcaa aggcttaaac
 12901 aacctaaata gaggtatggt gctgggcagt ttagctgcta cagtacgtct tcaggctgga
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 13021 cctgctaaag catataagga ttacctagca agtggaggac aaccaatcac caactgtgtg
 13081 aagatgttgt gtacacacac tggtagagga caggcaatta ctgtaacacc agaagctaac
 13141 atggaccaag agtcctttgg tgggtcttca tgttgcctgt attgtatgtg ccacattgac
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 13321 tggaaagggt atggctgtag ttgtgaccaa ctccgcgaac ccttgatgca gtctgcggat
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 13441 caggcactag tactgatgtc gtctacaggg cttttgatat ttacaacgaa aaagttgctg
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 13621 agactattta taacttggtt aaagattgtc cagcgggtgc tgtccatgac ttttcaagt
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 13981 tactgacatt agataatcag gatctaatg ggaactggta cgatttcggt gatttcgtac
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 15361 gtagatggt catgtgtggc ggctcactat atgttaaac aggtggaaca tcatccggtg
 15421 atgtacaac tgcctatgct aatagtgtt ttaacattg tcaagctgtt acagccaatg
 15481 taaatgcact tcttcaact gatggtaata agatagctga caagtagtc cgcaatctac

FIGURE 8 F

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 15601 agttttacgc ttacctgcgt aaacatttct ccatgatgat tctttctgat gatgccgttg
 15661 tgtgctataa cagtaactat gcggctcaag gtttagtagc tagcattaag aactttaagg
 15721 cagttcttta ttatcaaaat aatgtgttca tgtctgaggc aaaatgttgg actgagactg
 15781 accttactaa aggacctcac gaattttgct cacagcatac aatgctagtt aaacaaggag
 15841 atgattacgt gtacctgcct taccagatc catcaagaat attaggcgca ggctgttttg
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 15961 ttgatgctta cccacttaca aaacatccta atcaggagta tgcctgatgc tticacttgt
 16021 atttacaata cattagaaag ttacatgatg agcttactgg ccacatgttg gacatgtatt
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 16321 cccaggttg tgatgtcact gatgtgacac aactgtatct aggaggtatg agctattatt
 16381 gcaagtcaca taagcctccc attagtctt cattatgtgc taatggcag gtttttggt
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 17161 gaatcatacc tgcgctgcg cgcgtagagt gtttgataa attcaaagt aattcaacac
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 17341 gtgcaaaaca ctacgtctat attggcgatc ctgctcaatt accagcccc cgcacattgc
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 17701 tctacctta taattcacag aacgctgtag ctcaaaaat cttaggattg cctacgcaga
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 18481 gtgatacact gaaaggattg tcagacagag tctgttctg ccttgggag catggctttg
 18541 agcttactc aatgaagtac ttgtcaaga ttggacctga aagaactgt tgtctgtgtg
 18601 acaaacgtgc aacttgctt tctactcat cagatactta tgcctgctgg aatcattctg

FIGURE 8 G

18661 tgggttttga ctatgtctat aaccattta tgattgatgt tcagcagtgg ggctttacgg
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 18781 gttgtgatgc tatcatgact agatgtttag cagtccatga gtgctttgtt aagcgcgttg
 18841 attggtctgt tgaataccct attataggag atgaactgag ggtaattct gcttgcagaa
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 19081 ctacacatca cgataaatc actgatgggt tttgtttgtt ttggaattgt aacgttgatc
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 19561 atgtggctta taatgttgtt aataaaggac actttgatgg acacgccggc gaagcacctg
 19621 ttccatcat taataatgct gtttacaaa aggttagatg tattgatgtg gagatcttg
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 20401 aaacaggttc atcaaaatgt gtgtgtctg tgattgatct ttacttgat gactttgtc
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 20581 aactacaagc aagtcaagcg tggcaaccag gtgttgcgt gcctaacttg tacaagatgc
 20641 aaagaatgct tcttgaagag tgtgacctc agaattatgg tgaagatgct gttatacaa
 20701 aaggaataat gatgaatgc gcaaagtata ctcaactgtg tcaatactta aatacactta
 20761 ctttagctgt accctacaac atgagagtta ttactttgg tgcctggctt gataaaggag
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 21241 aaattgatgg ctataccatg catgctaact acatttctg gaggaacaca aatctatcc
 21301 agttgtcttc ctattcactc ttgacatga gcaatttcc tcttaaatga agaggaactg
 21361 ctgtaattgc tcttaaggag aatcaaatca atgatgat ttattctctt ctggaaaaag
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 21541 accggtgcac cactttgat galgttcaag ctcttaatta cactcaacat acttcatca
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 21661 attttttct tccattttat tctaattgta cagggtttca tactattaat catacgtttg
 21721 gcaaccctgt catacctttt aaggatggta ttattttgc tggcacagag aaatcaaatg

FIGURE 8 H

21781 ttgtccgtgg ttgggtttt gggttaccac tgaacaacaa gtcacagtcg gtgattatta
 21841 ttaacaattc tactaatgtt gttatacgag catgtaactt tgaattgtgt gacaaccctt
 21901 tctttgctgt ttctaaaccc atgggtacac agacacatac tatgatattc gataatgcat
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 23881 ggtcttttat tgaggacttg ctctttaata aggtgacact cgctgatgct ggcttcatga
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 24001 tcaatggact tacagtgttg ccacctctgc tcactgatga tatgattgct gcctacactg
 24061 ctgctctagt tagtgggtac gccactgctg gatggacatt tgggtgtggc gctgtcttcc
 24121 aaataccttt tgcctatgaa atggcatata ggttcaatgg cattggagtt acccaaatg
 24181 ttctctatga gaacaaaaa caaatgcga accaatttaa caaggcgatt agtcaaatc
 24241 aagaatcact tacaacaaca tcaactgcat tgggcaagct gcaagacgtt gtaaccaga
 24301 atgtcaagc attaaacaca cttgttaaac aacttagctc taattttgtt gcaatttcaa
 24361 gtgtgctaaa tgatctctt tgcgacttg ataaagtcga ggcggaggta caaattgaca
 24421 ggttaattac aggagactt caaagccttc aaacctatgt aacacaacaa ctaatcaggg
 24481 ctgctgaaat cagggttct gctaatcttg ctgctactaa aatgtctgag tgtgttcttg
 24541 gacaatcaaa aagagttgac tttgtggaa agggctacca cctatgtcc ttcccacaag
 24601 cagccccgca tgggtgttgc ttctacatg tcaagtatgt gccatcccag gagaggaact
 24661 tcaccacagc gccagcaatt tgcctatgaa gcaaagcata ctccctcgt gaaggtgttt
 24721 ttgtgtttaa tggcacttct tgggtttta cacagaggaa ctcttttct ccacaaataa
 24781 ttactacaga caatacatit gtctcaggaa attgtgatgt cgttattggc atcattaaca
 24841 acacagttta tgatcctctg caacctgagc ttgactcatt caaagaagag ctggacaagt

FIGURE 8 I

24901 acttcaaaaa tcatacatca ccagatgttg atcttggcga catttcaggc attaacgctt
 24961 ctgtcgtcaa cattcaaaaa gaaattgacc gcctcaatga ggtcgcataa aatttaaag
 25021 aatcacatcat tgaccttcaa gaattgggaa aatatgagca atatattaaa tggccttggt
 25081 atgtttggct cggcttcatt gctggactaa ttgccatcgt catgggttaca atcttgcttt
 25141 gttgcatgac tagttgttgc agttgcctca aggggtcatg ctttgttggt tcttgctgca
 25201 agtttgaiga ggaatgactct gagccagttc tcaaggggtgt caaattacat tacacataaa
 25261 cgaacttatg gatttgltta tgagattttt tactcttaga tcaattactg cacagccagt
 25321 aaaaattgac aatgcttctc ctgcaagtac tgttcatgct acagcaacga taccgctaca
 25381 agcctcactc cctttcggat ggcttggtat tggcgttgca ttcttctgtg ttttcagag
 25441 cgtacacaaa ataattgcgc tcaataaaaag atggcagcta gccctttata agggcttcca
 25501 gttcatttgc aatttactgc tgcatttgtt taccatctat tcacatcttt tgcctgtcgc
 25561 tgcaggtatg gaggcgcaat tttgtacct ctatgccttg atatatttc tacaatgcat
 25621 caacgcatgt agaattatta tgagatgttg gctttgttg aagtgc aaat ccaagaaccc
 25681 attactttat gatgccaaat actttgttg ctggcacaca cataactatg actactgtat
 25741 accatataac agtgcacag atacaattgt cgttactgaa ggtgacggca ttcaacacc
 25801 aaaactcaaa gaagactacc aaattgggtg ttattctgag gataggcact cagggtgtaa
 25861 agactatgtc gttgtacatg gctatttacc cgaagtttac taccagcttg agtctacaca
 25921 aattactaca gacactggta ttgaaatgc tacattcttc atcttaca agcttgtaa
 25981 agaccaccg aatgtgcaaa tacacacaat cgacggctct tcaggagttg ctatccagc
 26041 aatggatcca atttatgat agccgacgac gactactagc gtgcctttgt aagcacaaga
 26101 aagtgaatga gaacttatgt actcattcgt ttccggaaga acaggtacgt taatagttaa
 26161 tagcgtactt cttttcttg ctttcgttggt attcttgcta gtcacactag ccactctac
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 26281 ggtttacgtc tactcgcgtg ttaaaaatct gaactctct gaaggagttc ctgactctct
 26341 ggtctaaacg aactaactat tattattatt ctgtttggaa cttaacatt gcttatcatg
 26401 gcagacaacg gtactattac cgttgaggag cttaacaac tcttgaaca atggaacctta
 26461 gtaatagggt tcttattcct agcctggatt atgttactac aatttgccta ttctaactgg
 26521 aacagggttt tgtacataat aaagcttgtt tctcttggc tcttgtggcc agtaacactt
 26581 gcttgttttg tgccttctgc tgcctacaga attaatggg tgcctggcgg gattgcgatt
 26641 gcaatggctt gtatttagg ctgatgttg cttagctact tcttgcctc ctccaggctg
 26701 ttgtctgta cccgctcaat gtggcattc aaccagaaa caaacattct tctcaatgtg
 26761 cctctccggg ggacaattgt gaccagaccg ctcatggaaa gtgaactgt cattggtgct
 26821 gtgatcattc gtggcactt gcgaatggcc ggacactccc tagggcgctg tgacattaag
 26881 gacctgcaa aagagatcac tgtggctaca tcacgaacgc ttcttatta caaattagga
 26941 gcgtcgcagc gttaggcac tgattcaggt ttgtctcat acaaccgcta ccgtattgga
 27001 aactataaat taaatacaga ccagccggt agcaacgaca atattgctt gctagtacag
 27061 taagtacaa cagatgttc atcttggtga ctccagggt acaatagcag agatattgat
 27121 taccattatg aggactttca ggattgctat ttggaatct gacgttataa taagttcaat
 27181 agtgagacaa ttattaaagc cttaactaa gaagaattat tcggagttag atgatgaaga
 27241 acctatggag ttgattatc cataaaacga acatgaaaat tattctctc ctgacattga
 27301 ttgtatttac atcttgcgag ctatatcact atcaggagtg tgttagaggt acgactgtac
 27361 tactaaaaga acctgcccac tcaggaacat acgagggcaa ttcaccattt caccctcttg
 27421 ctgacaataa atttgcacta acttgcacta gcacacactt tgcctttgct tgtgctgacg
 27481 gtactcgaca tacttatcag ctgctgcaa gatcagttc accaaaactt ttcacagac
 27541 aagaggaggt tcaacaagag ctctactcgc cacttttct cattgttgc gctctagtat
 27601 tttaatact ttgttcacc attagagaa agacagaatg aatgagctca cttaattga
 27661 ctctatttg tgccttttag cctttctgt attccttgtt ttaataatgc ttattatatt
 27721 ttgttttca ctgaaatcc aggatctaga agaacttgt accaaagtct aaacgaacat
 27781 gaaacttctc attgtttga ctgtattc tctatgcagt tgcattgca ctgtagtaca
 27841 gcgtgtgca tcaataaac ctcatgtgt tgaagatcct tgaaggtag aacactaggg
 27901 gtaatactta tagcactgct tggcttttg ctctaggaaa gggtttacct ttcatagat
 27961 ggcacactat ggltcaaca tgcacacta atgttactat caactgtcaa gatccagctg

FIGURE 8 J

28021 gtggtgcgct tatagctagg tgttggtacc ttcataagg tcaccaaact gctgcattta
 28081 gagacgtact tgttgttta aataaacgaa caaatataaa tgtctgataa tggaccccaa
 28141 tcaaaccaac gtagtgccc ccgcattaca ttggtggac ccacagattc aactgacaat
 28201 aaccagaatg gaggacgcaa tggggcaagg ccaaacagc gccgaccca aggtttacc
 28261 aataatactg cgtcttggt cacagctctc actcagcatg gcaaggagga acttagattc
 28321 cctcgaggcc agggcggtcc aatcaacacc aatagtggtc cagatgacca aattggctac
 28381 taccgaagag ctaccgacg agtctgtgtt ggtgacggca aaatgaaaga gctcagcccc
 28441 agatggtaact tctattacct aggaactggc ccagaagctt cacttcccta cggcgctaac
 28501 aaagaaggca tctatgggt tgcaactgag ggagccttga atacaccaa agaccacatt
 28561 ggcacccgca atcctaataa caatgctgcc accgtgctac aacttctca aggaacaaca
 28621 ttgcaaaaag gcttctacgc agagggaagc agaggcggca gtcaagcctc ttctcgctcc
 28681 tcatcacgta gtcgcggtaa ttcaagaaat tcaactcctg gcagcagtag gggaaattct
 28741 cctgctcgaa tggctagcgg aggttggtgaa actgccctcg cgctattgct gctagacaga
 28801 ttgaaccagc ttgagagcaa agttctgtt aaaggccaac aacaacaagg ccaaactgtc
 28861 actaagaaat ctgctgctga ggcactctaa aagcctcgcc aaaaacgtac tggcacaaaa
 28921 cagtacaacg tactcaagc atttgggaga cgtgggtccag aacaaacca aggaaatttc
 28981 ggggaccaag acctaatcag acaaggaact gattacaaac attggccgca aattgcacaa
 29041 ttgtctcaa gtgcctctgc attctttgga atgtcacgca ttggcatgga agtcacacct
 29101 tcgggaacat ggctgactta tcatggagcc attaaattgg atgacaaaga tccacaattc
 29161 aaagacaacg tcatactgct gaacaagcac attgacgcat acaaacatt cccaccaaca
 29221 gagcctaaaa aggacaaaaa gaaaaagact gatgaagctc agcctttgcc gcagagacaa
 29281 aagaagcagc ccactgtgac tcttcttct gcggctgaca tggatgattt ctccagacaa
 29341 cttcaaaatt ccatgagtgg agcttctgct gattcaactc aggcataaac actcatgatg
 29401 accacacaag gcagatgggc tatgtaaacg ttctcgcaat tccgtttacg atacatagtc
 29461 tactcttggt cagaatgaat tctcgtaact aaacagcaca agtaggttta gttaacttta
 29521 atctcacata gcaatcttta atcaatgtgt aacattaggg aggacttgaa agagccacca
 29581 cattttcatc gaggccacgc ggagtacgat cgagggtaca gtgaataatg ctagggagag
 29641 ctgcctatat ggaagagccc taatgtgtaa aattaattt agtagtgcta tccccatgtg
 29701 attttaatag ctcttagga gaatgacaaa aaaaaaaaaa aaaaaaaaaa a

FIGURE 9A

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1 ctacccagga aaagccaacc aacctcgatc tcttgtagat ctgttctcta aacgaacttt
61 aaaatctgtg tagctgtcgc tgggctgcat gcctagtgca cctacgcagt ataaacaata
121 ataaatttta ctgtcgttga caagaaacga gtaactcgtc cctcttctgc agactgctta
181 cggtttcgtc cgtgttgagc tcgatcatca gcatacctag gtttcgtccg ggtgtgaccg
241 aaaggtaaga tggagagcct tgttcttggt gtcaacgaga aaacacacgt ccaactcagt
301 ttgcctgtcc ttcagggttag agacgtgcta gtgcgtggct tgggggactc tgtggaagag
361 gccctatcgg aggcacgtga acacctcaaa aatggcactt gtggtctagt agagctggaa
421 aaaggcgtac tgccccagct tgaacagccc tatgtgttca ttaaacgttc tgatgcctta
481 agcaccaatc acggccacaa ggtcgttgag ctggttgagc aaatggacgg cattcagtac
541 ggtcgtagcg gtataacact gggagtactc gtgccacatg tgggcgaaac cccaattgca
601 taccgcaatg ttcttcttcg taagaacggt aataaggagc ccggtggtca tagctatggc
661 atcgatctaa agtcttatga cttagggtgac gagcttggca ctgatcccat tgaagattat
721 gaacaaaact ggaacactaa gcatggcagt ggtgcactcc gtgaactcac tctgtagctc
781 aatggagggtg cagtcactcg ctatgtcgac aacaatttct gtggcccaga tgggtaccct
841 cttgattgca tcaaagattt tctcgcacgc gcgggcaagt caatgtgcac tctttccgaa
901 caacttgatt acatcgagtc gaagagaggt gtctactgct gccgtgacca tgagcatgaa
961 attgcctggt tcaactgagcg ctctgataag agctacgagc accagacacc cttcgaaatt
1021 aagagtgcc aaaaatttga cactttcaaa ggggaatgcc caaagtttgt gtttctctt
1081 aactcaaaag tcaaagtcac tcaaccacgt gttgaaaaga aaaagactga gggtttcatg
1141 gggcgtatac gctctgtgta cctgttgca tctccacagg agtgtaacaa tatgcacttg
1201 tctaccttga tgaaatgtaa tcattgcat gaagtttcat ggcagacgtg cgactttctg
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1321 gggtagctac ctactaatgc tgtagtga aaatccatgtc ctgcctgtca agaccagag
1381 attggacctg agcatagtgt tgcagattat cacaaccact caaacattga aactcgactc
1441 cgcaaggagg gtaggactag atgttttggg ggtgtgtgtg ttgcctatgt tggctgctat
1501 aataagcgtg cctactgggt tctcgtgct agtgctgata ttggctcagg ccatactggc
1561 attactgggtg acaatgtgga gacctgaat gaggatctcc ttgagatact gagtcgtgaa
1621 cgtgttaaca ttaacattgt tggcgatttt catttgaatg aagaggttgc catcattttg
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2401 cgtcagtgtg tacgtggcaa ggagcagctg caactactca tgcctcttaa ggcacaaaaa
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2641 caatactgcg cattgtctcc tggtttactg gctacaaaac atgtctttcg cttaaaaggg
2701 ggtgcaccaa tttaaagggtg aacctttgga gaagatactg tttgggaagt tcaagggtac
2761 aagaatgtga gaatcacatt tgagcttgat gaacgtgttg acaaagtgtc taatgaaaag
2821 tgctctgtct acactgttga atccgggtacc gaagtactg agtttgcag tgttgtagca
2881 gaggctgttg tgaagacttt acaaccagtt tctgatctcc ttaccaacat gggatttgat
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3121 caaggtctcc ctctggaatt tgggtgcctc gctgaaacag ttcgagttga ggaagaagaa
3181 gaggaagact ggctggatga tactactgag caatcagaga ttgagccaga accagaacct
3241 acacctgaag aaccagttaa tcagtttact ggttatttaa aacttactga caatgttgcc
3301 attaaatgtg ttgacatcgt taaggaggca caaagtgtc atcctatggt gattgtaaat
3361 gctgctaaca tacacctgaa acatggtggt ggtgtagcag gtgcactcaa caaggcaacc
3421 aatggtgcc aaaaaagga gagtgatgat tacattaagc taaatggccc tcttacagta
3481 ggagggtctt gtttgctttc tggacataat cttgctaaga agtgtctgca tgttgttgga
3541 cctaacctaa atgcaggtga ggacatccag cttcttaagg cagcatatga aaatttcaat
3601 tcacaggaca tcttacttgc accattgttg tcagcaggca tatttggtgc taaaccactt

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FIGURE 9B

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3661 cagtctttac aagtgtgcgt gcagacgggt cgtacacagg tttatattgc agtcaatgac
3721 aaagctcttt atgagcaggt tgtcatggat tatcttgata acctgaagcc tagagtggaa
3781 gcacctaaac aagaggagcc accaaacaca gaagattcca aaactgagga gaaatctgtc
3841 gtacagaagc ctgtcgatgt gaagccaaaa attaaggcct gcattgatga ggttaccaca
3901 acactggaag aaactaagtt tcttaccat aagttactct tgtttgctga tatcaatggg
3961 aagctttacc atgattctca gaacatgctt agagggtgaag atatgtcttt ccttgagaag
4021 gatgcacctt acatggtagg tgatgttatc actagtgggtg atatcacttg tgttgtaata
4081 ccctccaaaa aggctgggtg cactactgag atgctctcaa gagctttgaa gaaagtgcc
4141 gttgatgagt atataaccac gtaccctgga caaggatgtg ctgggttatac acttgaggaa
4201 gctaagactg ctcttaagaa atgcaaatct gcatttttatg tactaccttc agaagcacct
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4441 ttcttctttt atactagtaa agagcctgta gcttctatta ttacgaagct gaactctcta
4501 aatgagccgc ttgtcacaat gccaatgggt tatgtgacac atgggtttta tcttgaagag
4561 gctgcgcgct gtatgcgttc tcttaaagct cctgccgtag tgtcagtatc atcaccagat
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4981 ggtgctgatg ttacaaaaat taaacctcat gtaaatcatg aggttaagac tttctttgta
5041 ctacctagtg atgacacact acgtagtga gctttcgagt actaccatac tcttgatgag
5101 agttttcttg gtaggtacat gtctgcttta aaccacacaa agaaatggaa atttcctcaa
5161 gttgggtggt taacttcaat taaatgggct gataacaatt gttatttgtc tagtggttta
5221 ttagcacttc aacagcttga agtcaaattc aatgcaccag cacttcaaga ggcttattat
5281 agagcccgtg ctggtgatgc tgctaacttt tgtgcaactc tactcgctta cagtaataaa
5341 actgttggcg agcttgggtg tgtcagagaa actatgaccc atcttctaca gcatgcta
5401 ttggaatctg caaagcgagt tcttaatgtg gtgtgtaaac attgtgggtc gaaaactact
5461 accttaacgg gtgtagaagc tgtgatgtat atgggtactc tatcttatga taatcttaag
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5641 ttcttatgtg cgaatgagta cactggtaac tatcagtgtg gtcattacac tcatataact
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5761 ggaccagtga ctgatgtttt ctacaaggaa acatcttaca ctacaaccat caagcctgtg
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5881 aaaaaggata atgcttacta tacagagcag cctatagacc ttgtaccaac tcaaccatta
5941 ccaaagcgga gttttgataa tttcaaactc acatgttcta acacaaaatt tgctgatgat
6001 ttaaatcaaa tgacaggctt cacaagcca gcttcacgag agctatctgt cacattcttc
6061 ccagacttga atggcgatgt agtggctatt gactatagac actattcagc gagtttcaag
6121 aaaggtgcta aattactgca taagccaatt gtttggcaca ttaaccaggc tacaaccaag
6181 acaacgttca aaccaaacac ttgggtgttta cgttgtcttt ggagtacaaa gccagtagat
6241 acttcaaatt catttgaagt tctggcagta gaagacacac aaggaatgga caatcttgct
6301 tgtgaaagtc aacaaccac ctctgaagaa gtagtggaat atcctaccat acagaaggaa
6361 gtcataagat gtgacgtgaa aactaccgaa gttgtaggca atgtcatact taaaccatca
6421 gatgaagggt ttaaagtaac acaagagtta ggtcatgagg atcttatggc tgcttatgtg
6481 gaaaacacaa gcattaccat taagaaacct aatgagcttt cactagcctt aggtttaaaa
6541 acaattgcca ctcatgggat tgctgcaatt aatagtgttc cttggagtaa aattttggct
6601 tatgtcaaac cattcttagg acaagcagca attacaacat caaattgcgc taagagatta
6661 gcacaacgtg tgtttaacaa ttatatgcct tatgtgttta cattattgtt ccaattgtgt
6721 acttttacta aaagtaccaa ttctagaatt agagcttcac tacctacaac tattgctaaa
6781 aatagtgtta agagtgttgc taaattatgt ttggatgccg gcattaatta tgtgaagtca
6841 cccaaatttt ctaaattgtt cacaatcgct atgtggctat tgttggttaag tatttgctta
6901 ggttctctaa tctgtgtaac tgctgctttt ggtgtactct tatctaattt tgggtgctct
6961 tcttattgta atggcggttag agaattgtat cttaattcgt ctaacgttac tactatggat
7021 ttctgtgaag gttcttttcc ttgcagcatt tgtttaagtg gattagactc ccttgattct
7081 tatccagctc ttgaaacat tcaggtgacg atttcatcgt acaagctaga cttgacaatt
7141 ttaggtctgg ccgctgagtg ggttttggca tataatgtgt tcacaaaatt cttttattta
7201 ttaggtcttt cagctataat gcaggtgttc tttggctatt ttgctagtca tttcatcagc
7261 aattcttggc tcatgtgggt tatcattagt attgtacaaa tggcaccggt ttctgcaatg
7321 gttaggatgt acatcttctt tgcttctttc tactacatat ggaagagcta tgttcatatc

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FIGURE 9C

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7381 atggatgggt gcacctcttc gacttgcatt atgtgctata agcgcaatcg tgccacacgc
7441 gttgagtgtg caactattgt taatggcatg aagagatctt tctatgtcta tgcaaatgga
7501 ggccgtgggt tctgcaagac tcacaattgg aattgtctca attgtgacac attttgcact
7561 ggtagtacat tcattagtga tgaagttgct cgtgatttgt cactccagtt taaaagacca
7621 atcaacccta ctgaccagtc atcgtatat tttgatagtg ttgctgtgaa aaatggcgcg
7681 cttcacctct actttgacaa ggctgggtcaa aagacctatg agagacatcc tctctcccat
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7981 acttttagtg ttcttatgga aaaacttaag gcacttggtg ctacagctca cagcgagtta
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10981 tcaactgttt tctttgttta cgagaatgct ttcttgccat ttactcttgg tattatggca
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FIGURE 9D

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FIGURE 9E

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FIGURE 9F

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21421 gagaaaacaa cagagtgtgt gtttcaagt atattcttgt taacaactaa acgaacatgt
21481 ttattttctt attatttctt actctcacta gtggtagtga ccttgaccgg tgcaccactt
21541 ttgatgatgt tcaagctcct aattacactc aacatacttc atctatgagg ggggtttact
21601 atcctgatga aatttttaga tcagacactc tttatttaac tcaggattta tttcttccat
21661 tttattctaa tgttacaggg tttcatacta ttaatcatal gtttgacaac cctgtcatac
21721 cttttaagga tggattttat tttgctgcca cagagaaatc aaatgttgtc cgtgggtggg
21781 tttttgggtc taccatgaac aacaagtcac agtcggtgat tattattaac aattctacta
21841 atgttggtat acgagcatgt aactttgaat tgtgtgacaa ccctttcttt gctgtttcta
21901 aacccatggg tacacagaca catactatga tattcgataa tgcatttaat tgcactttcg
21961 agtacatatc tgatgccttt tcgcttgatg tttcagaaaa gtcaggtaat tttaaacact
22021 tacgagagtt tgtgtttaaa aataaagatg ggtttctcta tgtttataag ggctatcaac
22081 ctatagatgt agttcgtgat ctaccttctg gttttaacac tttgaaacct atttttaagt
22141 tgcctcttgg tattaacatt acaaatttta gagccattct tacagccttt tcacctgctc
22201 aagacacttg gggcacgtca gctgcagcct attttgttgg ctatttaaag ccaactacat

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FIGURE 9G

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22261 ttatgctcaa gtatgatgaa aatggtacaa tcacagatgc tgttgattgt tctcaaaatc
22321 cacttgctga actcaaatgc tctgttaaga gctttgagat tgacaaagga atttaccaga
22381 cctctaattt cagggttggt ccctcaggag atgttggtgag attccctaata attacaaact
22441 tgtgtccttt tggagagggt tttaatgcta ctaaattccc ttctgtctat gcatgggaga
22501 gaaaaaaaaat ttctaattgt gttgctgatt actctgtgct ctacaactca acattttttt
22561 caacctttta gtgctatggc gtttctgcca ctaagttgaa tgatctttgc ttctccaatg
22621 tctatgcaga ttcttttgta gtcaagggag atgatgtaag acaaatagcg ccaggacaaa
22681 ctggtgttat tgctgattat aattataaat tgccagatga ttcatgggt tgtgtccttg
22741 cttggaatac taggaacatt gatgctactt caactggtaa ttataattat aatataggt
22801 atcttagaca tggcaagctt aggccctttg agagagacat atctaattgt cctttctccc
22861 ctgatggcaa accttgcacc ccacctgctc ttaattgtta ttggccatta aatgattatg
22921 gttttttacac cactactggc attggctacc aaccttacag agttgtagta ctttcttttg
22981 aactttttaa tgcaccggcc acggtttgtg gaccaaatt atccactgac cttattaaga
23041 accagtgtgt caattttaat tttaatggac tcactggtac tgggtgtgta actccttctt
23101 caaagagatt tcaaccattt caacaatttg gccgtgatgt ttctgatttc actgattccg
23161 ttcgagatcc taaaacatct gaaatattag acatttcacc ttgctctttt gggggtgtaa
23221 gtgtaattac acctggaaca aatgcttcat ctgaagttgc tgttctatat caagatgtta
23281 actgcactga tgtttctaca gcaattcatg cagatcaact cacaccagct tggcgcatat
23341 attctactgg aaacaatgta ttccagactc aagcaggctg tcttatagga gctgagcatg
23401 tcgacacttc ttatgagtgc gacattccta ttggagctgg catttggtgt agttaccata
23461 cagtttcttt attacgtagt actagccaaa aatctattgt ggcttatact atgtctttag
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23581 ttagcattac tacagaagta atgcctgttt ctatggctaa aacctccgta gattgtaata
23641 tgtacatctg cggagattct actgaatgtg ctaatttgct tctccaatat ggtagctttt
23701 gcacacaact aaatcgtgca ctctcaggta ttgctgctga acaggatcgc aacacacgtg
23761 aagtgttcgc tcaagtcaaa caaatgtaca aaacccaac tttgaaatat tttggtgggt
23821 ttaatttttc acaaatatta cctgaccctc taaagccaac taagaggctt tttattgagg
23881 acttgctctt taataagggt acactcgtct atgctggctt catgaagcaa tatggcgaat
23941 gcctagggtg tattaatgct agagatctca tttgtgcgca gaagttcaat ggacttacag
24001 tgttgccacc tctgctcact gatgatatga ttgctgccta cactgctgct ctagttagtg
24061 gtactgccac tgctggatgg acatttggtg ctggcgctgc tcttcaaata ccttttgcta
24121 tgcaaattggc atatagggtt aatggcattg gagttaccca aaatgttctc tatgagaacc
24181 aaaaacaaat cgccaaccaa tttaacaagg cgattagtca aattcaagaa tcacttacaa
24241 caacatcaac tgcattgggc aagctgcaag acgttggtta ccagaatgct caagcattaa
24301 acacacttgt taaacaactt agctctaatt ttggtgcaat ttcaagtgtg ctaaatagata
24361 tcctttcgcg acttgataaa gtcgaggcgg aggtacaaat tgacagggtta attacaggca
24421 gacttcaaag ctttcaaacc tatgtaacac aacaactaat cagggtgctt gaaatcaggg
24481 cttctgctaa tcttgctgct actaaaatgt ctgagtgtgt tcttggaaca tcaaaaagag
24541 ttgacttttg tggaaagggc taccacctta tgtccttccc acaagcagcc ccgcatgggtg
24601 ttgtcttcct acatgtcacg tatgtgccat cccaggagag gaacttcacc acagcgccag
24661 caatttgtca tgaaggcaaa gcatacttcc ctctggaagg tgtttttgtg tttaatggca
24721 cttcttggtt tattacacag aggaacttct tttctccaca aataattact acagacaata
24781 catttgcttc aggaaattgt gatgtcgtta ttggcatcat taacaacaca gtttatgatc
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24901 catcaccaga tgttgatctt ggcgacattt caggcattaa cgcttctgtc gtcaacattc
24961 aaaaagaaat tgaccgcctc aatgaggtcg ctaaaaattt aaatgaatca ctcatgacc
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25261 gtttatgaga ttttttactc ttggatcaat tactgcacag ccagtaaaaa ttgacaatgc
25321 ttctcctgca agtactgttc atgctacagc aacgataccg ctacaagcct cactcccttt
25381 cggatggctt gttattggcg ttgcatctct tgctgttttt cagagcgcta ccaaaataat
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25501 actgctgcta tttgttacca tctattcaca tcttttgctt gtcgctgcag gtatggaggc
25561 gcaatttttg tacctctatg ccttgatata ttttctacaa tgcataacg catgtagaat
25621 tattatgaga tgttggtttt gttggaagtg caaatccaag aaccattac tttatgatgc
25681 caactacttt gtttgctggc acacacataa ctatgactac tgtataccat ataacagtgt
25741 cacagataca attgtcgtta ctgaagggtg cggcatttca acaccaaacc tcaaagaaga
25801 ctaccaaatt ggtggttatt ctgaggatag gcactcaggt gttaaagact atgtcgttgt
25861 acatggctat ttcaccgaag tttactacca gcttgagtct acacaaatta ctacagacac
25921 tgggtattgaa aatgctacat tcttcatctt taacaagctt gttaaagacc caccgaatgt

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FIGURE 9H

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25981 gcaaatacac acaatcgacg gctcttcagg agttgctaata ccagcaatgg atccaatttta
26041 tgatgagccg acgacgacta ctagcgtgcc tttgtaagca caagaaagtg agtacgaact
26101 tatgtactca ttcgttttcgg aagaaacagg tacgttaata gttaatagcg tacttctttt
26161 tcttgctttc gtgggtattct tgctagtcac actagccatc cttactgcgc ttcgattgtg
26221 tgcgtactgc tgcaatattg ttaacgtgag tttagtaaaa ccaacgggtt acgtctactc
26281 gcgtgttaaa aatctgaact cttctgaagg agttcctgat cttctgggtc aaacgaacta
26341 actattatta ttattctggt tggaacttta acattgctta tcatggcaga caacgggtact
26401 attaccgttg aggagcttaa acaactcctg gaacaatgga acctagtaat aggtttccta
26461 ttcctagcct ggattatggt actacaattt gcctattcta atcggaacag gtttttgtac
26521 ataataaagc ttgtttttcct ctggctcttg tggccagtaa cacttgcttg ttttgtgctt
26581 gctgctgtct acagaattaa ttgggtgact ggcgggattg cgattgcaat ggcttgtatt
26641 gtaggcttga tgtggcttag ctacttcgtt gcttccttca ggctgtttgc tcgtaccgcg
26701 tcaatgtggc cattcaaccc agaaacaaac attcttctca atgtgcctct ccgggggaca
26761 attgtgacca gaccgctcat ggaaagtga cttgtcattg gtgctgtgat cattcgtggt
26821 cacttgcgaa tggccggaca ctccctaggg cgctgtgaca ttaaggacct gccaaaagag
26881 atcactgtgg ctacatcacg aacgctttct tattacaaat taggagcgct gcagcgtgta
26941 ggcactgatt caggtttttgc tgcatacaac cgctaccgta ttggaaacta taaattaaat
27001 acagaccacg ccggtagcaa cgacaatatt gctttgctag tacagtaagt gacaacagat
27061 gtttcatctt gttgacttcc aggttacaat agcagagata ttgattatca ttatgaggac
27121 tttcaggatt gctattttgga atcttgacgt tataataagt tcaatagtga gacaattatt
27181 taagcctcta actaagaaga attattcgga gttagatgat gaagaaccta tggagttaga
27241 ttatccataa aacgaacatg aaaattattc tcttcctgac attgattgta tttacatctt
27301 gcgagctata tcactatcag gagtgtgtta gaggtacgac tgtactacta aaagaacctt
27361 gcccatcagg aacatacgag ggcaattcac catttcacct tcttgctgac aataaatttg
27421 cactaacttg cactagcaca cactttgctt ttgcttgtgc tgacgggtact cgacataacct
27481 atcagctgcg tgcaagatca gtttcaccaa aacttttcat cagacaagag gaggttcaac
27541 aagagctcta ctgcacctt tttctcattg ttgctgctct agtattttta atactttgct
27601 tcaccattaa gagaaagaca gaatgaatga gctcacttta attgacttct atttgtgctt
27661 tttagccttt ctgctattcc ttgttttaat aatgcttatt atatttttgt tttcactcga
27721 aatccaggat ctagaagaac cttgtaccaa agtctaaacg aacatgaaac ttctcattgt
27781 tttgacttgt atttctctat gcagttgcat acgcactgta gtacagcgct gtgcatctaa
27841 taaacctcat gtgcttgaag atccttgtaa ggtacaacac taggggtaat acttatagca
27901 ctgcttggct ttgtgctcta ggaaagggtt taccttttca tagatggcac actatgggtc
27961 aaacatgcac acctaattgtt actatcaact gtcaagatcc agctgggtggg gcgcttatag
28021 ctaggtgttg gtaccttcat gaaggtcacc aaactgctgc atttagagac gtacttgttg
28081 ttttaaataa acgaacaaat taaaatgtct gataatggac cccaatcaaa ccaacgtagt
28141 gccccccgca ttacatttgg tggaccacaa gattcaactg acaataacca gaatggagga
28201 cgcaatgggg caaggccaaa acagcgccga cccaagggtt taccataaa tactgcgtct
28261 tggttcacag ctctcactca gcatggcaag gaggaactta gattccctcg aggccagggc
28321 gttccaatca acaccaatag tggccagat gaccaaattg gctactaccg aagagctacc
28381 cgacgagttc gtgggtgggtga cggcaaaatg aaagagctca gccccagatg gtacttctat
28441 tacctaggaa ctggcccaga agcttcactt cctacggcg ctaacaaaga aggcacgta
28501 tgggttgcaa ctgagggagc cttgaataca ccaaagacc acattggcac ccgcaatcct
28561 aataacaatg ctgccaccgt gctacaactt cctcaaggaa caacattgcc aaaaggcttc
28621 tacgcagagg gaagcagagg cggcagtcaa gcctcttctc gctcctcatc acgtagtcgc
28681 ggtaattcaa gaaattcaac tcctggcagc agtaggggaa attctcctgc tcgaatggct
28741 agcggagggtg gtgaaactgc cctcgcgcta ttgctgctag acagattgaa ccagcttgag
28801 agcaaagttt ctggtaaagg ccaacaacaa caaggccaaa ctgtcactaa gaaatctgct
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28921 caagcatttg ggagacgttg tccagaacaa acccaaggaa atttcgggga ccaagacctt
28981 atcagacaag gaactgatta caaacattgg ccgcaaattg cacaatttgc tccaagtgcc
29041 tctgcattct ttggaatgtc acgcattggc atggaagtca caccttcggg aacatggctg
29101 acttatcatg gagccattaa attggatgac aaagatccac aattcaaaga caacgtcata
29161 ctgctgaaca agcacattga cgcatacaaa acattcccac caacagagcc taaaaaggac
29221 aaaaagaaaa agactgatga agctcagcct ttgccgcaga gacaaaagaa gcagcccact
29281 gtgactcttc ttcctgcggc tgacatggat gatttctcca gacaacttca aaattccatg
29341 agtggagctt ctgctgattc aactcaggca taaacactca tgatgaccac acaaggcaga
29401 tgggctatgt aaacgttttc gcaattccgt ttacgataca tagtctactc ttgtgcagaa
29461 tgaattctcg taactaaaca gcacaagtag gtttagttaa ctttaatctc acatagcaat
29521 ctttaaatcaa tgtgtaacat tagggaggac ttgaaagagc caccacattt tcatcgaggc
29581 cacgcggagt acgatcgagg gtacagtga taatgctagg gagagctgcc tatatggaag

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FIGURE 9I

29641 agccctaag tgtaaaatta attttagtag tgctatcccc atgtgatttt aatagcttct
29701 taggagaatg acaaaaaaaaaa aaaaaaaaaa aaaaaa

FIGURE 10

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1 tctgtgtagc tgtcgctcgg ctgcatgcct agtgcaccta cgcagtataa acaataataa
61 attttactgt cgttgacaag aaacgagtaa ctcgccctc ttctgcagac tgcttacggt
121 ttcgtccgtg ttgcagtcga tcatcagcat acctagggtt cgtccgggtg tgaccgaaag
181 gtaagatgga gagccttggt cttgggtgtca acgagaaaac acacgtccaa ctcagtttgc
241 ctgtccttca ggtagagac gtgctagtgc gtggcttcgg ggactctgtg gaagaggccc
301 tatcggaggc acgtgaacac ctcaaaaatg gcacttgtgg tctagtagag ctggaaaaag
361 gcgtactgcc ccagcttgaa cagccctatg tgttcattaa acgttctgat gccttaagca
421 ccaatcacgg ccacaaggtc gttgagctgg ttgcagaaat ggacggcatt cagtacggtc
481 gtagcgggtat aacactggga gtactcgtgc cacatgtggg cgaaaccca attgcatacc
541 gcaatgttct tcttcgtaag aacggtaata agggagccgg tggcatagc tatggcatcg
601 atctaaagtc ttatgactta ggtgacgagc ttggcactga tcccattgaa gattatgaac
661 aaaactggaa cactaagcat ggcagtgggt cactccgtga actcactcgt gagctcaatg
721 gaggtgtagt cactcgctat gtcgacaaca atttctgtgg ccagatggg taccctcttg
781 attgcatcaa agattttcta gcacgcgcgg gcaagtcaat gtgcactctt tccgaacaac
841 ttgattacat cgagtcgaag agaggtgtct actgctgccg tgaccatgag catgaaattg
901 cctgggtcac tgagcgctct gataagagct gcgagacca gacacccttc gaaattaaga
961 gtgccaaaga atttgacact ttcaaagggg aatgccc aaa gtttgtgtt cctcttaact
1021 caaaagtcaa agtcattcaa ccacgtgttg aaaagaaaa gactgagggt ttcatggggc
1081 gtatacgctc tgtgtaccct gttgcatctc cacaggagtg taacaatatg cacttgtcta
1141 ccttgatgaa atgtaatcat tgcgatgaag tttcatggca gacgtgcgac tttctgaaag
1201 ccacttgtga acattgtggc actgaaaatt tagttattga aggacctact acatgtgggt
1261 acctacctac taatgctgta gtgaaaatgc catgtcctgc ctgtcaagac ccagagattg
1321 gacctgagca tagtggtgca gattatcaca accactcaa cattgaaact cgactccgca
1381 agggaggtag gactagatgt tttggaggct gtgtgtttgc ctatgttggc tgctataata
1441 agcgtgccta ctgggttcct cgtgctagtg ctgatattgg ctcaggccat actggcatta
1501 ctggtgacaa tgtggagacc ttgaatgagg atctccttga gatactgagt cgtgaacgtg
1561 ttaacattaa cattgttggc gattttcatt tgaatgaaga ggttgccatc attttggcat
1621 ctttctctgc ttctacaagt gcctttattg acactataaa gagtcttgat tacaagtctt
1681 tcaaaaccat tgttgagtc tgcggt
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FIGURE 11A

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1  agtggttttat tagcacttca acagcttgaa gtcaaattca atgcaccagc acttcaagag
61  gcttattata gagcccgtgc tgggtgatgct gctaactttt gtgcactcat actcgcttac
121 agtaataaaa ctggtggcga gcttgggtgat gtcagagaaa ctatgaccca tcttctacag
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241 aaaactacta ccttaacggg tgtagaagct gtgatgtata tgggtactct atcttatgat
301 aatcttaaga caggtgtttc cattccatgt gtgtgtggtc gtgatgctac acaatatcta
361 gtacaacaag agtcttcttt tgttatgatg tctgcaccac ctgctgagta taaattacag
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901 agtttcaaga aaggtgctaa attactgcat aagccaattg tttggcacat taaccaggct
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1501 caatttgtga cttttactaa aagtaccaat tctagaatta gagcttcact acctacaact
1561 attgctaaaa atagtgttaa gagtgttgct aaattatgtt tggatgccgg cattaattat
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1681 atttgcttag gttctctaat ctgtgtaact gctgcttttg gtgtactctt atctaatttt
1741 ggtgctcctt cttattgtaa tggcggttaga gaattgtatc ttaattcgtc taacgttact
1801 actatggatt tctgtgaagg ttcttttcc tgcagcattt gtttaagtgg attagactcc
1861 cttgattctt atccagctct tgaaaccatt caggtgacga tttcatcgta caagctagac
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2341 ttttgcactg gtagtacatt cattagtgat gaagttgctc gtgatttgct actccagttt
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3481 tttagccagc gtgggtgggtc atacaaaaat gacaaaagct gccctgtagt agctgctatc
3541 attacaagag agattgggtt catagtgcct ggcttaccgg gtactgtgct gagagcaatc
3601 aatgggtgact tcttgcattt tctacctcgt gtttttagtg ctgttggcaa catttgctac

```


FIGURE 11B

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3661 acaccttcca aactcattga gtatagtgat tttgctacct ctgcttgctg tcttgctgct
3721 gagtgtacaa tttttaagga tgctatgggc aaacctgtgc catattgtta tgacactaat
3781 ttgctagagg gttctatttc ttatagttag cttcgtccag acactcgtta tgtgcttatg
3841 gatgggtcca tcatacagtt tcctaacact tacctggagg gttctgttag agtagtaaca
3901 acttttgatg ctgagtactg tagacatggg acatgcgaaa ggtcagaagt aggtatttgc
3961 ctatctacca gtggtagatg gggtcttaat aatgagcatt acagagctct atcaggagtt
4021 ttctgtgggtg ttgatgcatg gaatctcata gctaacatct ttactcctct tgtgcaacct
4081 gtgggtgctt tagatgtgtc tgcttcagta gtggctgggtg gtattattgc catattgggtg
4141 acttgtgctg cctactactt tatgaaattc agacgtgttt ttggtgagta caaccatggt
4201 gttgctgcta atgcactttt gtttttgatg tctttcacta tactctgtct ggtaccagct
4261 tacagctttc tgccgggagt ctactcagtc ttttacttgt acttgacatt ctatttcacc
4321 aatgatgttt cattcttggc tcacctcaa tgggttgcca tgtttctctc tattgtgcct
4381 ttttgataa cagcaatcta tgtattctgt atttctctga agcactgcca ttgggtcttt
4441 aacaactatc ttaggaaaag agtcatgttt aatggagtta catttagtac cttcgaggag
4501 gctgctttgt gtaccttttt gctcaacaag gaaatgtacc taaaattgcg tagcgagaca
4561 ctggtgcccac ttacacagta taacagggtat cttgctctat ataacaagta caagtatttc
4621 agtggagcct tagatactac cagctatcgt gaagcagctt gctgccactt agcaaaggct
4681 ctaaatgact ttagcaactc aggtgctgat gttctctacc aaccaccaca gacatcaatc
4741 acttctgctg ttctgcagag tgggttttagg aaaatggcat tcccgtcagg caaagttgaa
4801 ggggtgcatgg tacaagtaac ctgtggaact acaactctta atggattgtg gttggatgac
4861 acagtatact gtccaagaca tgtcatttgc acagcagaag acatgcttaa tcctaactat
4921 gaagatctgc tcattcgcaa atccaacat agctttcttg ttcaggctgg caatgttcaa
4981 cttcgtgtta ttggccattc tatgcaaaat tgtctgctta ggcttaaagt tgatacttct
5041 aaccctaaga caccgaagta taaatttgct cgtatccaac ctggtcaaac attttcagtt
5101 ctagcatgct acaatgggtc accatctggg gtttatcagt gtgccatgag acctaatacat
5161 accattaaag gttctttcct taatggatca tgtggtagtg ttgggtttta cattgattat
5221 gattgctgtg ctttctgcta tatgcatcat atggagcttc caacaggagt acacgctggg
5281 accgacttag aaggtaaatt ctatgggtcca tttgttgaca gacaaactgc acaggctgca
5341 ggtacagaca caaccataac attaaatggt ttggcatggc tgtatgctgc tgttatcaat
5401 ggtgataggt ggtttcttaa tagattcacc actactttga atgactttaa ccttgtggca
5461 atgaagtaca actatgaacc tttgacacaa gatcatgttg acatattggg acctctttct
5521 gctcaaacag gaattgccgt cttagatatg tgtgctgctt tgaaagagct gctgcagaat
5581 ggtatgaatg gtcgtactat ccttggtagc actattttag aagatgagtt tacaccattt
5641 gatgttgtta gacaatgctc tgggtgttacc ttccaaggta agttcaagaa aattgttaag
5701 ggcactcatc attggatgct tttaactttc ttgacatcac tattgattct tgttcaaagt
5761 acacagtggg cactgttttt ctttgtttac gagaatgctt tcttgccatt tactcttggt
5821 attatggcaa ttgctgcatg tgctatgctg cttgttaagc ataagcacgc attcttgtgc
5881 ttgtttctgt taccttctct tgcaacagtt gcttacttta atatggtcta catgcctgct
5941 agctgggtga tgcgtatcat gacatggctt gaattggctg acactagctt gtctgggtat
6001 aggccttaagg attgtgttat gtatgcttca gctttagttt tgcttattct catgacagct
6061 cgcactgttt atgatgatgc tgctagacgt gtttgacac tgatgaatgt cattacactt
6121 gtttacaaag tctactatgg taatgcttta gatcaagcta tttccatgtg ggccttagtt
6181 atttctgtaa cctctaacta ttctgggtgc gttacgacta tcatgttttt agctagagct
6241 atagtgtttg tgtgtgttga gtattatcca ttgttattta ttactggcaa caccttacag
6301 tgtatcatgc ttgtttattg tttcttaggc tattgttgct gctgctactt tggccttttc
6361 tgtttactca accgttactt caggcttact cttgggtgtt atgactactt ggtctctaca
6421 caagaattta ggtatatgaa ctcccagggg cttttgcctc ctaagagtag tattgatgct
6481 ttcaagctta acattaaagt gttgggtatt ggaggtaaac catgtatcaa ggttgctact
6541 gtacagtcta aaatgtctga cgtaaagtgc acatctgtgg tactgctctc gggtcttcaa
6601 caacttagag tagagtcac ttctaaattg tgggcacaa gtgtacaact ccacaatgat
6661 attcttcttg caaaagacac aactgaagct ttcgagaaga tgggtttctc tttgtctggt
6721 ttgctatcca tgcagggtgc tgtagacatt aatagggtgt gcgaggaaat gctcgataac
6781 cgtgctactc ttcaggctat tgcttcagaa tttagttctt taccatcata tgccgcttat
6841 gccactgccc aggaggccta tgagcaggct gtagctaatt gtgattctga agtcgttctc
6901 aaaaagttaa agaaatcttt gaatgtggct aaatctgagt ttgaccgtga tgctgccatg
6961 caacgcaagt tggaaaagat ggcagatcag gctatgaccc aaatgtacaa acaggcaaga
7021 tctgaggaca agagggccca agtcgcttct gctatgcaaa caatgctctt cactatgcta
7081 aggaagcttg ataatgatgc acttaacaac attatcaaca atgcgcgtga tgggtgtgtt
7141 ccactcaaca tcataccatt gactacagca gccaaactca tgggtgttgt ccctgattat
7201 ggtacctaca agaacacttg tgatggtaac acctttacat atgcatctgc actctgggaa
7261 atccagcaag ttgttgatgc ggatagcaag attgttcaac ttagtgaaat taacatggac
7321 aattcaccaa atttggcttg gcctcttatt gttacagctc taagagccaa ctcagctggt

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FIGURE 11C

```

7381 aaactacaga ataatgaact gagtccagta gcactacgac agatgtcctg tgcggctggt
7441 accacacaaa cagcttgtac tgatgacaat gcacttgcct actataacaa ttcgaaggga
7501 ggtaggtttg tgctggcatt actatcagac caccaagatc tcaaattgggc tagattccct
7561 aagagtgatg gtacaggtag aatttacaca gaactggaac caccttgtag gtttgttaca
7621 gacacaccaa aagggcctaa agtgaaatac ttgtacttca tcaaaggctt aaacaaccta
7681 aatagaggta tgggtgctggg cagtttagct gctacagtac gtcttcaggc tggaaatgct
7741 acagaagtac ctgccaattc aactgtgctt tccttctgtg cttttgcagt agaccctgct
7801 aaagcatata aggattacct agcaagtgga ggacaaccaa tcaccaactg tgtgaagatg
7861 ttgtgtacac acactggtag aggacaggca attactgtaa caccagaagc taacatggac
7921 caagagtcct ttggtggtag ttcatgttgt ctgtattgta gatgccacat tgaccatcca
7981 aatcctaaag gattctgtga cttgaaaggc aagtacgtcc aaatacctac cacttgtgct
8041 aatgacccag tgggttttac acttagaaac acagtctgta ccgtctgcgg aatgtggaaa
8101 ggttatggct gtagttgtga ccaactccgc gaacccttga tgcagtctgc ggatgcatca
8161 acgtttttaa acgggtttgc ggtgtaagtg cagcccgtct tacaccgtgc ggcacaggca
8221 ctagtactga tgctgtctac agggcttttg atatttacia cgaaaaagtt gctgggtttg
8281 caaagttcct aaaaactaat tgctgtcgct tccaggagaa ggatgaggaa ggcaatttat
8341 tagactctta ctttgtagtt aagaggcata ctatgtctaa ctaccaacat gaagagacta
8401 ttataaactt ggttaaagat tgtccagcgg ttgctgtcca tgactttttc aagtttagag
8461 tagatggtag catggtacca catatatcac gtcagcgtct aactaaatac acaatggctg
8521 atttagtcta tgctctacgt ctttttgatg agggtaattg tgatacatta aaagaaatac
8581 tcgtcacata caattgctgt gatgatgatt atttcaataa gaaggattgg tatgacttcg
8641 tagagaatcc tgacatctta cgcgtatatg ctaacttagg tgagcgtgta cgccaatcat
8701 tattaagac tgtacaattc tgcgatgcta tgcgtgatgc aggcattgta ggcgtactga
8761 cattagataa tcaggatctt aatgggaact ggtacgattt cgggtgatttc gtacaagtag
8821 caccaggctg cggagttcct attgtggatt catattactc attgctgatg cccatcctca
8881 ctttgactag ggcattggct gctgagtccc atatggatgc tgatctcgca aaaccactta
8941 ttaagtggga tttgctgaaa tatgatttta cggaagagag actttgtctc ttcgaccgtt
9001 attttaaata ttgggaccag acataccatc ccaattgtat taactgtttg gatgataggt
9061 gtatccttca ttgtgcaaac tttaatgtgt tattttctac tgtgtttcca cctacaagtt
9121 ttggaccact agtaagaaaa atattttagt atgggtgttc ttttgttgtt tcaactggat
9181 accattttct tgagtttaga gtcgtacata atcaggatgt aaacttacat agctcgcgtc
9241 tcagtttcaa ggaactttta gtgtatgctg ctgatccagc tatgcatgca gcttctggca
9301 atttattgct agataaacgc actacatgct tttcagtagc tgcactaaca acaatgttg
9361 cttttcaaac tgtcaaaccg ggtaatttta ataaagactt ttatgacttt gctgtgtcta
9421 aaggtttctt taaggaagga agttctgttg aactaaaaca cttcttcttt gctcaggatg
9481 gcaacgctgc tatcagtgat tatgactatt atcgttataa tctgccaaca atgtgtgata
9541 tcagacaact cctattcgta gttgaagttg ttgataaata ctttgattgt tacgatgggtg
9601 gctgtattaa tgccaaccaa gtaatcgta acaatctgga taaatcagct ggtttcccat
9661 ttaataaatg gggtaaggct agactttatt atgactcaat gagttatgag gatcaagatg
9721 cacttttctc gtatactaag cgtaatgtca tccctactat aactcaaag aatcttaagt
9781 atgccattag tgcaaagaat agagctcgca ccgtagctgg tgtctctatc tgtagtacta
9841 tgacaaatag acagtttcat cagaaattat tgaagtcaat agccgccact agaggagcta
9901 ctgtggtaat tggacaagc aagttttacg gtggctggca taatatgtta aaaactgttt
9961 acagtgatgt agaaactcca caccttatgg gttgggatta tccaaaatgt gacagagcca
10021 tgcctaacat gcttaggata atggcctctc ttgttcttgc tgcgcaacat aacacttgct
10081 gtaacttata acaccgtttc tacagggttag ctaacgagtg tgcgcaagta ttaagtgaga
10141 tggctcatgt tggcggctca ctatatgtta aaccagggtg aacatcatcc ggtgatgcta
10201 caactgctta tgctaatagt gtctttaaca tttgtcaagc tgttacagcc aatgtaaagt
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10321 ggctctatga gtgtctctat agaaataggg atgttgatca tgaattcgtg gatgagtttt
10381 acgcttacct gcgtaaacat ttctccatga tgattcttct tgatgatgcc gttgtgtgct
10441 ataacagtaa ctatgcggct caaggtttag tagctagcat taagaacttt aaggcagttc
10501 tttattatca aaataatgtg ttcatgtctg aggcaaaatg ttggac

```

FIGURE 12A

```

1  attagcgata  tgtatgaccc  taggaccaa  catgtgacaa  aagagaatga  ctctaaagaa
61  gggttttttca  cttatctgtg  tggatttata  aagcaaaaac  tagccctggg  tggttctata
121  gctgtaaaga  taacagagca  ttcttggaat  gctgaccttt  acaagcttat  gggccatttc
181  tcatgggtga  cagcttttgt  tacaaatgta  aatgcatcat  catcggaagc  atttttaatt
241  ggggctaact  atcttggaac  gccgaaggaa  caaattgatg  gctataccat  gcatgctaac
301  tacattttct  ggaggaacac  aaatcctatc  cagttgtctt  cctattcact  ctttgacatg
361  agcaaatttc  ctcttaaatt  aaggggaact  gctgtaatgt  ctcttaagga  gaatcaaata
421  aatgatata  tttattctct  tctggaaaaa  ggtaggctta  tcattagaga  aaacaacaga
481  gttgtgggtt  caagtatat  tcttggttaac  aactaaacga  acatgtttat  tttcttatta
541  tttcttactc  tcactagtgg  tagtgacctt  gaccgggtga  ccacttttga  tgatgttcaa
601  gctcctaatt  acactcaaca  tacttcactc  atgagggggg  ttactatcc  tgatgaaatt
661  tttagatcag  acactcttta  ttttaactcag  gatttatttc  ttccatttta  ttctaattgt
721  acagggtttc  atactattaa  tcatacgttt  ggcaaccctg  tcataccttt  taaggatggg
781  atttattttg  ctgccacaga  gaaatcaaata  gttgtccgtg  gttgggtttt  tggttctacc
841  atgaacaaca  agtcacagtc  ggtgattatt  attagcaatt  ctactaatgt  tggtatacga
901  gcatgtaact  ttgaattgtg  tgacaaccct  ttctttgctg  tttctaaacc  catgggtaca
961  cagacacata  ctatgatatt  cgataatgca  ttttaattgca  ctttcgagta  catatctgat
1021  gcctttttcgc  ttgatgtttc  agaaaagtca  ggtaatttta  aacacttacg  agagtgtgtg
1081  tttaaaaata  aagatgggtc  tctctatgtt  tataagggtc  atcaacctat  agatgtagt
1141  cgtgatctac  cttctgggtt  taacactttg  aaacctattt  ttaagttgcc  tcttgggtat
1201  aacattacaa  attttagagc  cattcttaca  gccttttcac  ctgctcaaga  catttggggc
1261  acgtcagctg  cagcctattt  tgttgggtat  ttaaagccaa  ctacatttat  gctcaagtat
1321  gatgaaaatg  gtacaatcac  agatgctgtt  gattgctctc  aaaatccact  tgctgaactc
1381  aatgctctg  ttaagagctt  tgagattgac  aaaggaattt  accagacctc  taatttcagg
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1501  gaggttttta  atgctactaa  attccttctt  gtctatgcat  gggagagaaa  aaaaatttct
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1801  aacattgatg  ctacttcaac  tggtaattat  gattataaat  ataggtatct  tagacatggc
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1921  tgcacccac  ctgctcttaa  ttgttattgg  ccattaaatg  attatgggtt  ttacaccact
1981  actggcattg  gctaccaacc  ttacagagtt  gtagtacttt  cttttgaact  tttaaatgca
2041  ccggccacgg  tttgtggacc  aaaattatcc  actgacctta  ttaagaacca  gtgtgtcaat
2101  ttttaatttta  atggactcac  tgggtactgg  gtgttaactc  cttcttcaaa  gagatttcaa
2161  ccattttcaac  aattttggcg  tgatgtttct  gatttcactg  attccgttcg  agatcctaaa
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2281  ggaacaaatg  ctcatctga  agttgctgtt  ctatatcaag  atgttaactg  cactgatgtt
2341  tctacagcaa  ttcatgcaga  tcaactcaca  ccagcttggc  gcataatatt  tactggaaac
2401  aatgtattcc  agactcaagc  aggtgtctct  ataggagctg  agcatgtcga  cacttcttat
2461  gagtgcgaca  ttcctattgg  agctggcatt  tgtgctagtt  accatacagt  ttctttatta
2521  cgtagtacta  gccaaaaatc  tattgtggct  tatactatgt  ctttaggtgc  tgatagtcca
2581  attgcttact  ctaataacac  cattgctata  cctactaact  tttcaattag  cattactaca
2641  gaagtaatgc  ctgtttctat  ggctaaaacc  tccgtagatt  gtaatatgta  catctgcgga
2701  gattctactg  aatgtgctaa  tttgcttctc  caatatggta  gcttttgcac  acaactaaat
2761  cgtgcactct  caggtattgc  tgctgaacag  gatcgcaaca  cacgtgaagt  gttcgctcaa
2821  gtcaaacaaa  tgtacaaaac  cccaactttg  aaatattttg  gtggttttta  tttttcacia
2881  atattacctg  accctctaaa  gccaaactaa  aggtctttta  ttgaggactt  gccctttaat
2941  aaggtgacac  tcgctgatgc  tggcttcatg  aagcaatatg  gcgaatgcct  aggtgatatt
3001  aatgctagag  atctcatctg  tgcgcagaag  ttcaatggac  ttacagtgtt  gccacctctg
3061  ctactgatg  atatgattgc  tgcctacact  gctgctctag  ttagtggtag  tgccactgct
3121  ggatggacat  ttggtgctgg  cgctgctctt  caaataacct  ttgctatgca  aatggcatat
3181  aggttcaatg  gcattggagt  tacccaaaat  gttctctatg  agaaccacaa  acaaatcgcc
3241  aaccaattta  acaaggcgat  tagtcaaatt  caagaatcac  ttacaacaac  atcaactgca
3301  ttgggcaagc  tgcaagacgt  tgtaaacag  aatgctcaag  cattaaacac  acttgttaaa
3361  caacttagct  ctaatttttg  tgcaatttca  agtggtgctaa  atgatatcct  ttgcgcactt
3421  gataaagtgc  aggcggaggt  acaaattgac  aggttaatta  caggcagact  tcaaagcctt
3481  caaacctatg  taacacaaca  actaatcagg  gctgctggaa  tcagggtctc  tgctaattct
3541  gctgctacta  aaatgtctga  gtgtgttctt  ggacaatcaa  aaagagttga  cttttgtgga
3601  aagggtctacc  accttatgtc  cttcccacaa  gcagccccgc  atgggtgtgt  cttcctacat

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FIGURE 12B

```
3661 gtcacgtatg tgccatccca ggagaggaac ttcaccacag cgccagcaat ttgtcatgaa
3721 ggcaaagcat acttccctcg tgaagggtgtt tttgtgttta atggcacttc ttggtttatt
3781 acacagagga acttcttttc tccacaaata attactacag acaatacatt tgtctcagga
3841 aattgtgatg tcgttattgg catcattaac aacacagttt atgatcctct gcaacctgag
3901 cttgactcat tcaaagaaga gctggacaag tacttcaaaa atcatacatc accagatggt
3961 gatcttggcg acatttcagg cattaacgct tctgtcgtca acattcaaaa agaaattgac
4021 cgcctcaatg aggtcgctaa aaattttaat gaatcactca ttgaccttca agaattggga
4081 aaatatgagc aatatattaa atggccttgg tatgtttggc tcggcttcat tgctggacta
4141 attgccatcg tcatggttac aatcttgctt tgttgcatga ctagtgttg tagttgcctc
4201 aaggggtgcat gctcttgtgg ttcttgctgc aagtttgatg aggatgactc tgagccagtt
4261 ctcaaggggtg tcaaattaca ttacacataa acgaacttat ggatttgttt atgagatttt
4321 ttactcttgg atcaattact gcacagccag taaaaactga caatgcttct cctgcaagta
4381 ctgttcatgc tacagcaacg ataccgctac aagcctcact ccctttcgga tggcttggtta
4441 ttggcggtgc atttcttgct gtttttcaga gcgctaccaa aataattgcg ctcaataaaa
4501 gatggcagct agccctttat aagggttcc agttcatttg caatttactg ctgctatttg
4561 ttaccatcta ttcacatctt ttgcttgctg ctgcagggtat ggaggcgcaa tttttgtacc
4621 tctatgcctt gatatacttt ctacaatgca tcaacgcatg tagaattatt atg
```


FIGURE 13

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1 aaagaacctt gccatcagc aacatacgag ggcaattcac catttcaccc tcttgctgac
61 aataaatttg cactaacttg cactagcaca cacttttgctt ttgcttgtgc tgacgggtact
121 cgacatacct atcagctgcg tgcaagatca gtttcaccaa aacttttcat cagacaagag
181 gaggttcaac aagagctcta ctgcgccactt tttctcattg ttgctgctct agtattttta
241 atactttgct tcaccattaa gagaaagaca gaatgaatga gctcacttta attgacttct
301 atttgtgctt tttagccttt ctgctattcc ttgttttaat aatgcttatt atattttggt
361 tttcactcga aatccaggat ctagaagaac cttgtaccaa agtctaaacg aacatgaaac
421 ttctcattgt tttgacttgt atttctctat gcagttgcat atgcactgta gtacagcgct
481 gtgcatctaa taaacctcat gtgcttgaag atccttgtaa ggtacaacac taggggtaat
541 acttatagca ctgcttggct ttgtgctcta ggaaagggtt taccttttca tagatggcac
601 actatgggtc aaacatgcac acctaattgtt actatcaact gtcaagatcc agctgggtggt
661 gcgcttatag ctagggtgtg gtaccttcat gaaggtcacc aaactgctgc atttagagac
721 gtacttggtg ttttaaataa acgaacaaat taaaatgtct gataatggac cccaatcaaa
781 ccaacgtagt gcccccgca ttacatttgg tggaccacaa gattcaactg acaataacca
841 gaatggagga cgcaatgggg caaggccaaa acagcgccga cccaagggtt taccacaataa
901 tactgctgtc tggttcacag ctctcactca gcatggcaag gaggaactta gattccctcg
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1021 aagagctacc cgacgagttc gtggtggtga cggcaaaatg aaagagctca gccccagatg
1081 gtacttctat tacctaggaa ctggcccaga agcttcactt ccctacggcg ctaacaaaga
1141 aggcatacgt tgggttgcaa ctgaggggagc cttgaataca ccaaagacc acattggcac
1201 ccgcaatcct aataacaatg ctgccaccgt gctacaactt cctcaaggaa caacattgcc
1261 aaaaggcttc tacgcagagg gaagcagagg cggcagtcaa gcctcttctc gctcctcatc
1321 acgtagtcgc ggtaattcaa gaaattcaac tcctggcagc agtaggggaa atttctcctgc
1381 tcgaatggct agcggaggtg gtgaaactgc cctcgcgcta ttgctgctag acagattgaa
1441 ccagcttgag agcaaagttt ctggtaaagg ccaacaacaa caaggccaaa ctgtcactaa
1501 gaaatctgct gctgaggcat ctaaaaagcc tcgccaaaaa cgtacagcca caaaacagta
1561 caacgtcact caagcatttg ggagacgtgg tccagaacaa acccaaggaa atttcgggga
1621 ccaagaccta atcagacaag gaactgatta caaacattgg ccgcaaattg cacaatttgc
1681 tccaagtgcc tctgcattct ttggaatgtc acgcattggc atggaagccg caccttcggg
1741 aacatggctg acttatcatg gagccattaa attggatgac aaagatccac aattcaaaga
1801 caacgtcata ctgctgaaca agcacattga cgcatacaaa acattcccac caacagagcc
1861 taaaaaggac aaaaagaaaa agactgatga agctcagcct ttgccgcaga gacaaaagaa
1921 gcagcccact gtgactcttc ttctgcggc tgacatggat gatttctcca gacaacttca
1981 aaattccatg agtggagctt ctgctgattc aactcaggca taaacactca tgatgaccac
2041 acaaggcaga tgggctatgt aaacgttttc gcaattccgt ttacgataca tagtctactc
2101 ttgtgcagaa tgaattctcg taactaaaca gcacaagtag gtttagttaa ctttaatctc
2161 acatagcaat ctttaatcaa tgtgtaacat tagggaggac ttgaaagagc caccacattt
2221 tcatcgaggc cacgcggagt acgatcgagg gtacagtga taatgctagg gagagctgcc
2281 tatatggaag agccctaatt tgta

```

Figure 14A

1 caagtccttc aaaaccattg ttgagtcctg cggtaactat aaagttacca agggaaagcc
 61 cgtaaaaggt gcttggaaaca ttggacaaca gagatcagtt ttaacaccac tgtgtgggtt
 121 tccctcacag gctgctggig ttatcagatc aatttttgcg cgcacacttg atgcagcaaa
 181 ccaactcaat cctgatttgc aaagagcagc tgtcaccata ctgatggta ttctgaaca
 241 gtcattacgt ctgtcagacg ccatgggtta tacttcagac ctgctacca acagtgtcat
 301 tattatggca tatgtaactg gtggcttctg acaacagact tctcagtggt tgtctaact
 361 ttggggcact actgttgaaa aactcaggcc tatctttgaa tggattgagg cgaaacttag
 421 tgcaggaggt gaatttctca aggatgcttg ggagattctc aaatttctca ttacagggtg
 481 ttgtgacatc gtcaagggtc aaatacaggt tgcctcagat aacatcaagg attgtgtaaa
 541 atgcttcatt gatgttcta acaaggcact cgaaatgtgc attgatcaag tcactatcgc
 601 tggcgcaaag ttgcgatcac tcaacttagg tgaagtcctc atcgctcaaa gcaagggact
 661 ttaccgtcag tgtatactg gcaaggagca gctgcaacta ctcacgctc ttaaggcacc
 721 aaaagaagta accttcttg aagggtgatt acatgacaca gtacttacct ctgaggaggt
 781 tgttctcaag aacgggtgaac tcgaagcact cgagacgccc gttgatagct tcacaaatgg
 841 agctatcgtt ggcacaccag tctgtgtaaa tggcctcatg ctcttagaga ttaaggacaa
 901 agaacaatac tgcgcattgt ctctgggtt actggctaca acaatgtct ttcgcttaaa
 961 aggggggtgca ccaattaaag gtgtaacctt tggagaagat actgtttggg aagttaagg
 1021 ttacaagaat gtgagaatca catttgagct tgatgaacgt gttgacaaag tgcctaatga
 1081 aaagtgtctt gtctacactg ttgaatccgg taccgaagtt actgagtttg catgtgtgt
 1141 agcagaggct gttgtgaaga ctctacaacc agtttctgat ctcttacca acatgggtat
 1201 tgatcttgat gagtggagt tagctacatt ctactattt gatgatgctg gtgaagaaa
 1261 ctcttcatc cgtatgtatt gtctcttcta cctccagat gaggaagaag aggacgatgc
 1321 agagtgtgag gaagaagaaa ttgatgaac ctgtgaacat gactacggta cagaggatga
 1381 ttatcaaggt ctccctctg aatttgggtg ctacagctga acagttcgag ttgaggaaga
 1441 agaagaggaa gactggcttg atgatactac tgagcaatca gagattgagc cagaaccaga
 1501 acctacacct gaagaaccag ttaactcagtt tactgggtat ttaaaactta ctgacaatgt
 1561 tgcattaaa tgtgttgaca ccgttaagga ggcacaaagt gctaactcta tgggtattgt
 1621 aaatgtctgt aacatacacc tgaacatgg tgggtgtgta gcagggtcac tcaacaaggc
 1681 aaccaatggt gccatgcaa aggagagtga tgattacatt aagctaaatg gccctcttac
 1741 agtaggaggg tctgtttgc ttctggaca taactttgct aagaagtgc tgcattgtgt
 1801 tggacctaac ctaaatgcag gtgaggacat ccagcttctt aaggcagcat atgaaaattt
 1861 caattcacag gacatcttac ttgcaccatt gttgtcagca ggcataattg gtgctaaacc
 1921 acttcagctt ttacaagtgt gcgtgcagac gggtcgtaca caggtttata ttgcagtcaa
 1981 tgacaaagct cttaatgagc aggttgctat ggattatctt gataacctga agcctagagt
 2041 ggaagcacct aaacaagagg agccacaaa cacagaagat tccaaaactg aggagaaatc
 2101 tgtcgtacag aagcctgtcg atgtgaagcc aaaaattaa gctgcattg atgagggtac
 2161 cacaacactg gaagaaacta agtttcttac caataagtta ctctgtttg ctgatatcaa
 2221 tggtaagctt taccatgatt ctgagaacat gcttagaggt gaagatatgt ctctcttga
 2281 ggaggatgca cctacatgg taggtgatgt tatcactagt ggtgatata ctgtgtgtgt
 2341 aataccctcc aaaaaggctg gtggcactac tgagatgctc tcaagagctt tgaagaaagt
 2401 gccagttgat gattatataa ccacgtaccc tggacaagga tgtgctggtt atacacttga
 2461 ggaagctaa agctgcttta agaaatgcaa atctgcatt tatgtactac cttcagaagc
 2521 acctaatgct aaggaagaga ttctaggaac tgtatccctg aatttgagag aaatgcttgc
 2581 tcatgctgaa gaggcaagaa aattaatgcc tatatgcatt gatgttagag ccataatggc
 2641 aaccatcaa cgtaagtata aaggagttaa aattcaagag ggcacgttg actatgggtg
 2701 ccgattcttc ttatatacta gtaaagagcc ttagcttctt attattacga agctgaactc
 2761 tctaaatgag ccgctgtgca caatgccaat tgggtatgtg acacatggtt ttaacttga
 2821 agaggctgct cgctgtatgc gtctcttaa agctcctgcc gtagtgcag tatcatcacc
 2881 agatgctgtt actacatata atggatacct cacttcgtca tcaagacat ctgaggagca
 2941 ctgttagaa acagttctt tggctggctc ttacagagat tggctctat caggacagcg
 3001 tacagagta ggtgtgaat ttcttaagcg tggtagacaa attgtgtacc acaccttga

Figure 14B

3061 gagccccgtc gagtttcatc ttgacgggtga ggttctttca cttgacaaac taaagagtct
3121 cttatccctg cgggagggtta agactataaa agtggtcaca actgtggaca aactaatct
3181 ccacacacag cttgtggata tgtctatgac atatggacag cagtgtggc caacatactt
3241 ggatgggtgct gatgttaca aaattaaacc tcatgtaaat catgagggtg agactttctt
3301 tgtactacct agtgatgaca cactacgtag tgaagcttc gactactacc atactcttga
3361 tgagagtttt cttggtaggt acatgtctgc tttaaaccac acaaagaaat ggaaatttcc
3421 tcaagtgggt ggtttaactt caattaaatg ggctgataac aattgttatt tgtctagtg
3481 ttattagca ctcaacagc ttgaagtcaa attcaatgca ccagcacttc aagagg

FIGURE 15A

1 caaaataatg tgttcatgtc tgaggcaaaa tgttggactg agactgacct tactaaagga
 61 cctcacgaat ttgtctaca gcatacaatg ctagttaaac aaggagatga ttacgtgtac
 121 ctgccctacc cagatccatc aagaatatta ggccgaggct gttttgtcga tgatattgtc
 181 aaaacagatg gtacacttat gattgaaagg ttctgttcac tggctattga tgcctaccca
 241 cttacaaaac atcctaata gtagtatgct gatgtcttc acttgtattt acaatacatt
 301 agaaagttag atgatgagct tactggccac atgttggaca tgtattccgt aatgctaact
 361 aatgataaca cctcacgga ctgggaacct gagttttatg aggctatga cacaccacat
 421 acagtcttgc aggctgtagg tgccttgta ttgtgcaatt cacagacttc acttcgttgc
 481 gggtccctga ttaggagacc actcctatgt tgcaagtgt gctatgacca tgcatttca
 541 acatcacaca aattagtgtt gctgttaat ccctatgttt gcaatgcccc aggttgtgat
 601 gtcactgatg tgacacaact gtatctagga ggtatgagct attattgcaa gtcacataag
 661 cctcccalla gtttccatt atgtgcta atgtcagggtt ttggtttata caaaaacaca
 721 tgtgtaggca gtgacaatgt cactgacttc aatgcgatag caacatgtga ttggactaat
 781 gctggcgatt acatacttgc caacacttgt actgagagac tcaagctttt cgcagcagaa
 841 acgtctaaag ccactgagga aacatttaag ctgtcatatg gtattgccac tgtacgcgaa
 901 gtactctctg acagagaatt gcatcttca tgggagggtg gaaaacctag accaccattg
 961 aacagaaact atgtctttac tggttaccgt gtaactaaaa atagtaaagt acagattgga
 1021 gactacacct ttgaaaagg tgaatgggt gatgtgttg tgtacagagg tactacgaca
 1081 tacaagtga atgttggta ttactttgtg ttgacatct acactgtaat gccacttagt
 1141 gcacctactc tagtgccaca agagcactat gtgagaatta ctggcttga cccaacactc
 1201 aacatctcag atgagtttc tagcaatgtt gcaaatatc aaaaggctcg catgcaaaag
 1261 tactctacac tccaaggacc acctggtact ggtaagagtc attttgccat cggacttgc
 1321 ctctattacc catctgctcg catagtgtat acggcatgct ctcatgcagc tgttgatgcc
 1381 ctatgtgaaa aggcattaaa atatttgccc atagataat gtagtagaat catacctgcg
 1441 cgtgcgcgcg tagagtgtt tgataaattc aaagtgaatt caacactaga acagtatgtt
 1501 ttctgcactg taaatgcatt gccagaaaca actgctgaca ttgtagtct tgatgaaac
 1561 tctatggcta ctaattatga ctgagtgtt gtaaatgcta gacttcgtgc aaaacactac
 1621 gtctatattg gcatcctgc tcaattacca gcccccgca cattgtgac taaaggcaca
 1681 ctagaaccag aatattttta ttactgtgc agacttatga aaacaatagg tccagacatg
 1741 ttccttgga cttgtcgccg ttgtcctgt gaaattgtg acactgtgag tgccttagt
 1801 tatgacaata agctaaaagc acacaaggag aagtcagctc aatgcttcaa aatgttctac
 1861 aaagggttta ttacacatga ttttcatct gcaatcaaca gacctcaat aggcgttgta
 1921 agagaatttc ttacacgcaa tctgcttg agaaaagctg ttttatctc acctataat
 1981 tcacagaacg ctgtagcttc aaaaatctta ggattgccta cgcagactgt tgattcatca
 2041 cagggttctg aatattgacta tgcataatc acacaaacta ctgaaacagc acactctgt
 2101 aatgtcaacc gcttcaatgt ggctatcaca agggcaaaaa ttggcatttt gtgcataatg
 2161 tctgataggg atctttatga caaactgcaa ttacaagtc tagaaatacc acgtcgcaat
 2221 gtggctacat tacaagcaga aatgttaact ggactttta aggactgtag taagatcatt
 2281 actggtcttc atctacaca ggcacctaca cactcagcg ttgatalaaa gttcaagact
 2341 gaaggattat gtgtgacat accaggcata ccaaaggaca tgacctaccg tagactcatc
 2401 tctatgatgg gtttcaaat gaattacca gtcaatgggt accctaata gtttatcacc
 2461 cgcgaagaag ctattctga ctgtctgcg tggattggct ttgatgtaga gggctgtcat
 2521 gcaactagag atgctgtggg tactaaccta cctctccagc taggatttc tacaggtgt
 2581 aacttagtag ctgtaccgac tggttatgt gacactgaaa ataacacaga attcaccaga
 2641 gttaatgcaa aacctccacc aggtgaccag tttaaacatc ttataccact calgtataaa
 2701 ggcttgcctt ggaatgtagt gcgtattaag atagtacaaa tgcctagtga tacactgaaa
 2761 ggattgtcag acagagtcgt gtctgtctt tgggcgcagc gctttgagct tacatcaatg
 2821 aagtaatttg tcaagattgg acctgaaaga acgtgtgtc tgtgtgaaa acgtgcaact
 2881 tgcctttcta ctcatcaga tactatgcc tgcgtgaac attctgtggg tttagactat
 2941 gtctataacc catttatgat tgaattcag cagtggggct ttacgggtaa ccttcagagt
 3001 aacctgacc aacattgcca ggtacatgga aatgcacatg tggctagtgt tgaatctatc

FIGURE 15B

3061 atgactagat gtttagcagt ccatgagtgc ttgttaagc gcgttgattg gtctgttgaa
 3121 taccctatta taggagatga actgaggggtt aattctgctt gcagaaaagt acaacacatg
 3181 gttgtgaagt ctgcattgct igctgataag ttccagttc ttcatgacat tggaaatcca
 3241 aaggctatca agtgtgtgcc tcaggctgaa gtagaatgga agttctacga tgcicagcca
 3301 ttagtgaca aagcttacia aatagaggaa ctcttctatt ctatgctac acatcacgat
 3361 aaattcacig atgggtttg ttgttttg aattgtaacg ttgatcgta cccagccaat
 3421 gcaattgtgt gtaggtttga cacaagagtc ttgtcaaact tgaacttacc aggtgtgac
 3481 gggtgtagtt tgtatgtgaa taagcatgca ttccacactc cagctttcga taaaagtga
 3541 ttactaatt taaagcaatt gcccttcctt tactattctg atagtccttg tgagtctcat
 3601 ggcaacaag tagtgtcgga tattgattat gttccactca aatctgctac gtgtattaca
 3661 cgatgcaatt taggtgtgac tgtttgcaga cccatgcaa atgagtaccg acagtacttg
 3721 gatgcatata atatgatgat ttctgctgga tttagcctat ggatttaca acaatttgat
 3781 acttataacc tgtggaatac atttaccagg ttacagagtt tagaaaatgt ggcttataat
 3841 gttgttaata aaggacactt tgatggacac gccggcgaag cacctgtttc catcattaat
 3901 aatgctgttt acacaaaggt agatgggtatt gatgtggaga tctttgaaag taagacaaca
 3961 cttccigtta atgttgcat ttagctttgg gctaagcgta acattaaacc agtgccagag
 4021 attagatc tcaataattt ggggtgtgat atcgctgcta atactgtaat ctgggactac
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 4141 aagaaaccta ctgagagtgc ttgtcttca ctactgtct tgtttgatgg tagagtggaa
 4201 ggacaggtag accttttag aaacgcccgt aatgggtttt taataacaga aggttcagtc
 4261 aaaggtctaa caccttcaa gggaccagca caagctagcg tcaatggagt cacattaatt
 4321 ggagaatcag taaaaacaca gttaactac tttaagaaag tagacggcat tattcaacag
 4381 ttgctgaaa cctactttac tcagagcaga gacttagagg attttaagcc cagatcaca
 4441 atggaaactg actttctcga gctcgtatg gatgaattca tacagcgata taagctcgag
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 4561 catthaatga taggcttagc caagcgtca caagattcac cacttaatt agaggatttt
 4621 atccctatgg acagcacagt gaaaaattac ttcataacag atgcgcaaac aggttcacat
 4681 aatgtgtgc gtctgtgat tgalcttita ctgatgact ttgtcgagat aataaagta
 4741 caagatttgt cagtgttcc aaaagtggc aaggttaca ttgactatgc tgaatttca
 4801 ttcatgcttt ggtgtaagga tggacatgtt gaaaccttct acccaaaact acaagcaagt
 4861 caagcgtggc aaccagggtg tgcgatgctt aactgtaca agatgcaaag aatgcttctt
 4921 gaaaagtgtg accttcagaa ttatgggtgaa aatgctgtta taccaaaagg aataatgatg
 4981 aatgtcgcaa agtatactca actgtgtcaa tacttaata cacttacttt agctgtaccc
 5041 tacaacatga gagttattca ctttgggtgt ggctctgata aaggagtgtc accaggtaca
 5101 gctgtgctca gacaatgggt gccaaactggc acactacttg tcatcaga tcttaatgac
 5161 ttctgtccg acgcagatt tactttaatt ggagactgtg caacagtaca tacggcta
 5221 aatgggacc ttattattag cgatatgtat gaccctagga cc

FIGURE 16

1 cactacttta tgatgccaac tactttgttt gctggcacac acataactat gactactgta
 61 taccatataa cagtgtcaca gatacaattg tcgttactga aggtgacggc atticaacac
 121 caaaactcaa agaagactac caaattgggtg gttattctga ggataggcac tcagggtgta
 181 aagactatgt cgttgtacat ggctatttca ccgaagtta ctaccagctt gactctacac
 241 aaattactac aaacactggt attgaaaatg ctacattctt catctttaac aagcttgta
 301 aagaccacc gaatgtgcaa atacacacaa tcgacggctc ttcaggagtt gctaaccag
 361 caatggatcc aattatgat gagccgacga cgactactag cgtgccttg taagcacaag
 421 aaagtgaagta cgaactatg tactcatteg ttccggaaga aacaggtagc ttaatagta
 481 atagegtact tcttttctt gccctcgigg tattcttgct agtcacacta gccatctta
 541 ctgcgttcg attgtgtcg tactgtgca atattgttaa cgtgagtta gtaaaccaa
 601 cggtttacgt ctactcgtt gtaaaaaac tgaactctc tgaaggagt cctgatctc
 661 tggctaaac gaactaacta ttatttat tctgttgga acttaacat tgcttatcat
 721 ggcagacaac ggtactatta ccgttgagga gcttaacaa ctctggaac aatggaacct
 781 agtaataggt ttctattcc tagcctggat tatgttacta caattgcct attctaactg
 841 gaacagggtt ttgtacataa taaagcttg ttctcttg cccttggtg cagtaacact
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 961 tgcaatggct tgtatttag gcttgatg gcttagctac ttcgtgctt ccttcaggct
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 1201 ggacctgcca aaagagatca ctgtggctac atcacgaacg cttcttatt acaaattagg
 1261 agcgtcgag cgtgtaggca ctgattcagg ttgtgtgca tacaaccgt accgtattg
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 1381 gtaagtgaac acagatggt catctgttg acttcagggt tacaatagca gagatattga
 1441 ttatcattat gaggacttc aggattgcta ttggaatct tgacgttata ataagtcaa
 1501 tagtgagaca attatttaag cctctaacta agaagaatta ttcggagta gatgatgaag
 1561 aacctatgga gttagattat ccataaaacg aacatgaaa ttattctt cctgacattg
 1621 attgtattta catcttgca gctatcac tatcaggagt gtgttagagg tacgactga
 1681 ctactaaaag aacctgccc atcagcaaca tacgaggga attcaccatt taccctctt
 1741 gctgacaata aattgcact aactgcact agcacacact ttgtttgc ttgtgctgac
 1801 g

FIGURE 17

1 aaagaacctt gccatcagc aacatacgag ggcaattcac catttcaccc tcttgctgac
 61 aataaatttg cactaacttg cactagcaca cactttgctt ttgcttgctgac tgacgggtact
 121 cgacatacct atcagctgcg tgcaagatca gtttcaccaa aacttttcat cagacaagag
 181 gaggttcaac aagagctcta ctgccactt ttctcattg ttgctgctct agtatittta
 241 atactttgct tcaccattaa gagaaagaca gaatgaatga gctcacttta attgacttct
 301 atttgctgct tttagccitt ctgctattcc ttgttttaaat aatgcttatt atattttggt
 361 ttctactcga aatccaggat ctagaagaac ctgtaccac agtctaaacg aacatgaaac
 421 ttctcattgt ttgacttgt atttctctat gcagttgcat atgcactgta gtacagcgct
 481 gtgcacttaa taaacctcat gtgcttgaag atccttgtaa ggtacaacac taggggtaat
 541 acttatagca ctgcttggtt ttgtgctcta ggaaagggtt tacctttca tagatggcac
 601 actatgggtc aaacatgcac acctaatgtt actatcaact gtcaagatcc agctgggtgt
 661 gcgcttatag ctagggtgtg gtacattcat gaaggctacc aaactgctgc atttagagac
 721 gtacttgttg ttttaataa acgaacaaat taaaatgtct gataatggac cccaatcaaa
 781 ccaacgtagt gcccccgca ttacatttgg tggaccacac gattcaactg acaataacca
 841 gaatggagga cgcaatgggg caaggccaaa acagcgccga cccaagggtt tacccaataa
 901 tactgctgct tgggtcacag ctctactca gcatggcaag gaggaactta gattccctcg
 961 aggccagggc gtccaatca acaccaatag tggccagat gaccaaattg gctactaccg
 1021 aagagctacc cgacgagttc gtggttggtga cggcaaaatg aaagagctca gcccagatg
 1081 gtacttctat tacctaggaa ctggcccaga agcttactt ccctacggcg ctaacaaaga
 1141 aggcacgta tgggttgcaa ctgaggggagc ctggaataca ccaaagacc acattggcac
 1201 ccgcaatcct aataacaatg ctgccaccgt gctacaactt cctcaaggaa caacattgcc
 1261 aaaaggcttc tacgcagagg gaagcagagg cggcagtcac gcctctctc gctctctac
 1321 acgtagtcgc ggtaattcaa gaaattcaac tcttgccagc agtaggggaa attctctgc
 1381 tcgaatggct agcggaggtg gtgaaactgc cctcgcgcta ttgctgctag acagattgaa
 1441 ccagcttgag agcaaagtt ctggtaaagg ccaacaacaa caaggccaaa ctgtactaa
 1501 gaaatctgct gctgaggcat ctaaaaagcc tcgccaaaaa cgtacagcca caaacagta
 1561 caacgtcact caagcattg ggagacgtg tccagaacaa acccaaggaa atttcgggga
 1621 ccaagacctt atcagacaag gaactgatta caaacattg ccgcaaattg cacaatttgc
 1681 tccaagtgc tctgcatct ttggaatgc acgcattggc atggaagccg cacttcggg
 1741 aacatggctg acitacatg gagccattaa attggatgac aaagatccac aattcaaaga
 1801 caacgtcata ctgctgaaca agcacattga cgcatacaaa acattccac caacagagcc
 1861 taaaaaggac aaaaagaaa agactgatga agctcagcct ttgccgcaga gacaaaagaa
 1921 gcagcccact gtgactctt ttctgcggc tgacatggat gatttctcca gacaacttca
 1981 aaattccatg agtggagctt ctgctgattc aactcaggca taaactca tgaagaccac
 2041 acaaggcaga tgggtatgt aaacgtttc gcaattccgt ttacgatata tagtctactc
 2101 ttgtgcagaa tgaattctc taactaaaca gcacaagtag gtttagttaa cttaaatc
 2161 acatagcaat cttaataca tgtgtaacat tagggaggac ttgaaagagc caccacattt
 2221 tcatcgaggc cacgcggagt acgatcgagg gtacagtga taatgctagg gagagctgcc
 2281 tatatggaag agccctaatg tgta

FIGURE 18A

1 caagtctttc aaaaccattg ttgagtcctg cggtaactat aaagttacca agggaaagcc
 61 cgtaaaaggt gcttggaaca ttggacaaca gagatcagtt ttaacaccac tgtgtgggtt
 121 tccctcacag gctgctgggt ttatcagatc aattttgcg cgcacacttg atgcagcaaa
 181 ccactcaatt cctgatttgc aaagagcagc tgtcaccata ctgatggta tttctgaaca
 241 gtcattacgt ctgtcgacg ccatgggtta tacttcagac ctgctacca acagtgtcat
 301 tattatggca tatgtaactg gtggcttgt acaacagact tctcagtgg tgtctaact
 361 tttgggcact actgttgaaa aactcaggcc tatcttgaa tggattgagg cgaaacttag
 421 tgcaggaggt gaatttctca aggatgcttg ggagattctc aaatttctca ttacagggtg
 481 ttttgacatc gtcaagggtc aaatacaggt tgcctcagat aacatcaagg attgtgtaa
 541 atgcttcatt gatgtgtta acaaggcact cgaaatgtgc attgatcaag tcactatcgc
 601 tggcgcaaag ttgcgatcac tcaacttagg tgaagtctc atcgtcaaa gcaagggact
 661 ttaccgtcag tgtatactg gcaaggagca gctgcaacta ctcatgcctc ttaaggcacc
 721 aaaagaagta acctttctg aaggtgattc acatgacaca gtacttacct ctgaggaggt
 781 tgttctcaag aacgggtgaac tgaagcact cgagacgccc gttgatagct tcacaaatgg
 841 agctatcgtt ggcacaccag tctgtgtaa tggcctcatg ctcttagaga ttaaggacaa
 901 agaacaatac tgcgcattgt ctcttggtt actggctaca aacaatgtct ttcgtttaa
 961 agggggtgca ccaattaaag gtgtaacctt tggagaagat actgtttggg aagtcaagg
 1021 ttacaagaat gtgagaatca catttgagct tgatgaacgt gttgacaaag tgcctaatga
 1081 aaagtgcct gtctacactg ttgaatccgg taccgaagtt actgagttg catgtgtgt
 1141 agcagaggct gttgtgaaga cttacaacc agtttctgat ctcttacca acatgggtat
 1201 tgatcttgat gagtggagtg tagctacatt ctactattt gatgatgctg gtgaagaaa
 1261 ctttcatca cgtatgtatt gttctttta cctccagat gaggaagaag aggacgatgc
 1321 agagtgtgag gaagaagaaa ttgatgaac ctgtgaacat gactacggtc cagaggatga
 1381 ttatcaaggt ctccctctgg aatttggtgc ctacgtgaa acagttcgag ttgaggaaga
 1441 agaagaggaa gactggctgg atgatactac tgagcaatca gagattgagc cagaaccaga
 1501 acctacacct gaagaaccag ttaatcagti tactgggtat ttaaaactta ctgacaatgt
 1561 tgccattaaa tgtgttgaca ccgttaagga ggcacaaagt gctaactta tgggtgattgt
 1621 aaatgctgct aacatacacc tgaacatgg tgggtggtga gcaggtgcac tcaacaaggc
 1681 aaccaatggt gccatgcaaa aggagagtga tgattacatt aagctaaatg gccctcttac
 1741 agtaggaggg tctgtttgc tttctggaca taatcttgc aagaagtgc tgcattgtgt
 1801 tggacctaac ctaaatgcag gtgaggacat ccagcttctt aaggcagcat atgaaaattt
 1861 caattcacag gacatcttac ttgcaccatt gttgtcagca ggcatattg gtgctaaacc
 1921 acttcagtct ttacaagtgt gcgtgcagac ggctgtaca caggttata ttgcagtcaa
 1981 tgacaaagct cttatgagc aggttgcatt ggattatctt gataacctga agcctagagt
 2041 ggaagcacct aaacaagagg agccacaaa cacagaagat tccaaaactg aggagaaatc
 2101 tgtcgtacag aagcctgtcg atgtgaagcc aaaaattaag gcctgcattg atgaggttac
 2161 cacaacactg gaagaaacta agtttcttac caataagtta ctctgtttg ctgatatcaa
 2221 tggttaagctt taccatgatt ctcaaacat gcttagaggt gaagatatgt ctttcttga
 2281 ggaggatgca cttacatgg taggtgatgt taccactagt ggtgatatca cttgtgtgt
 2341 aataccctcc aaaaaggctg gtggcactac tgagatgctc tcaagagctt tgaagaaagt
 2401 gccagtgtat gagtatataa ccacgtaccc tggacaagga tgtgtgtgtt atacacttga
 2461 ggaagctaag actgctctta agaaatgcaa atctgcattt tatgtactac cttcagaagc
 2521 acctaatgct aaggaagaga ttctaggaac tgtatcctgg aatttgagag aaatgcttgc
 2581 tcatgctgaa gaggcaagaa aattaatgcc tatatgcatg gatgttagag ccataatggc

FIGURE 18B

2641 aaccatccaa cgtaagtata aaggagttaa aattcaagag ggcacgttg actatgggtg
2701 ccgattcttc tttatacta gtaaagagcc ttagcttct attattacga agctgaactc
2761 tctaatgag ccgcttgta caatgccaat tggttatgtg acacatgggt ttaatcttga
2821 agaggctgcg cgctgtatgc gttctcttaa agctcctgcc gtagtgtcag tatcatcacc
2881 agatgctgtt actacatata atggatacct cacttcgtca tcaaagacat ctgaggagca
2941 cttttagaaa acagtttctt tggctggctc ttacagagat tggctctatt caggacagcg
3001 tacagagtta ggtgttgaat ttcttaagcg tggtagacaaa attgtgtacc acaccctgga
3061 gagccccgct gagtttcatc ttgacgggtga ggttcttca ctgacaaac taaagagtct
3121 cttatccctg cgggagggtta agactataaa agtgttcaca actgtggaca acactaatct
3181 ccacacacag cttgtggata tgtctatgac atatggacag cagtttggtc caacatactt
3241 ggatgggtgct gatgttacia aaattaaacc tcatgtaat catgagggtta agactttctt
3301 tgtactacct agtcatgaca cactacgtag tgaagcttc gactactacc atactcttga
3361 tgagagtttt ctggtaggt acatgtctgc tttaaaccac acaaagaaat ggaaattcc
3421 tcaagttggt ggtttaactt caattaatg ggctgataac aattgttatt tgtctagtgt
3481 ttattagca cttcaacagc ttgaagtcaa attcaatgca ccagcacttc aagagg

FIGURE 19

1 cattacttta tgaigccaac tactttgitt gctggcacac acataactat gactactgta
 61 taccatataa cagtgtcaca gatacaattg tcgttactga aggtgacggc atttcaacac
 121 caaaactcaa agaagactac caaattgggtg gttattctga ggataggcac tcagggtgta
 181 aagactatgt cgttgtacat ggctatttca ccgaagtta ctaccagctt gagtctacac
 241 aaattactac aaacactgggt attgaaaatg ctacattctt catctttaac aagcttgta
 301 aagaccacc gaatgtgcaa atacacacaa tcgacggctc ttcaggagtt gctaatccag
 361 caatggatcc aattatgat gagccgacga cgactactag cgtgcccttg taagcacaag
 421 aaagttagta cgaacttatg tactattcgt ttccggaaga aacaggtacg ttaatagta
 481 atagcgtact tcttttctt gccttcgtgg tattcttgct agtcacacta gccatctta
 541 ctgcgcttcg attgtgtcgt tactgtctga atattgttaa cgtgagtta gtaaaccaa
 601 cggtttacgt ctactcgtt gttaaaaatc tgaactctcc tgaaggagtt cctgatcttc
 661 tggctaaaac gaactaacta ttattattat tctgtttgga actttaacat tgcttatcat
 721 ggcagacaac ggtactatta ccgttgagga gcttaacaa ctctggaac aatggaacct
 781 agtaataggt ttctattcc tagcctggat tatgttacta caattgcct attctaactg
 841 gaacagggtt ttgtacataa taaagcttgt ttctctctgg ctcttggtgc cagtaacact
 901 tgcttgctt gtgcttgctg ctgtctacag aattaattgg gtgactggcg ggattgcgt
 961 tgcaatggct tgtattgtag gcttgatgtg gcttagctac ttcgttgctt ccttcaggct
 1021 gtttgctcgt acccgctcaa tgtggtcatt caaccggaa acaaacattc ttccaatgt
 1081 gcctctccgg gggacaattg tgaccagacc gctcatggaa agtgaacttg tcattgggtgc
 1141 tgtgatcatt cgtggctact tgcgaatggc cggacactcc ctagggcgt gtgacattaa
 1201 ggacctgcca aaagagatca ctgtggctac atcacgaacg cttcttatt acaaattagg
 1261 agcgtcgcag cgtgtaggca ctgattcagg tttgtctgca tacaaccgt accgtattgg
 1321 aaactataaa taaatacag accacgccgg tagcaacgac aatattgctt tgctagtaca
 1381 glaagtgaca acagatgitt catctgttg acttccaggt tacaatagca gagatattga
 1441 ttatcattat gaggacttc aggattgcta ttggaatct tgacgttata ataagttcaa
 1501 tagtgagaca attatttaag cctctaacta agaagaatta ttcggagtta gatgatgaag
 1561 aacctatgga gtagattat ccataaaacg aacatgaaaa ttattctctt cctgacattg
 1621 attgtattta catctgcga gctatcac tatcaggagt gtgttagagg tacgactgta
 1681 ctactaaaag aacctgccc atcagcaaca tacgagggca attcaccatt tcacctctt
 1741 gctgacaata aatttgact aacttgact agcacacact ttgctttgc ttgtgctgac
 1801 g

FIGURE 20

1 tctgtgtagc tgcgtcgg ctgcatgcct agtgcaccta cgcagtataa acaataataa
 61 attttactgt cgttgacaag aaacgagtaa ctgctccctc ttctgcagac tgcctacggt
 121 ttcgtccgtg ttgcagtcga tcatcagcat acctagggtt cgtccgggtg tgaccgaaag
 181 gtaagatgga gaggcttgtt ctgtgtgtca acgagaaaac acacgtccaa ctgagtttgc
 241 ctgtccttca ggtagagac gtgctagtgc gtggcttcgg ggactctgtg gaagaggccc
 301 tatcggaggc acgtgaacac ctcaaaaatg gcacttgtgg tctagtagag ctggaaaaag
 361 gcglactgcc ccagcttga cagccctatg tgttcattaa acgttctgat gccitaagca
 421 ccaatcacgg ccacaaggic gttgagctgg ttgcagaaat ggacggcatt caglacggtc
 481 gtagcggat aacactggga gtactcgtgc cacatgtggg cgaaacccca attgcatacc
 541 gcaatgttct tcttcgtaag aacggtaata agggagccgg tggcatagc tatggcatcg
 601 atctaaagtc ttatgactta ggtgacgagc ttggcactga tccattgaa gattatgaac
 661 aaaactggaa cactaagcat ggcagtggtg cactccgtga actcactcgt gagtcaatg
 721 gaggtgtagt cactcgtat gtcgacaaca atttctgtgg cccagatggg taccctcttg
 781 attgcatcaa agatttcta gcacgcgagg gcaagtcaat gtgcactctt tccgaacaac
 841 ttgattacat cgagtcgaag agaggtgtct actgctgccg tgaccatgag catgaaattg
 901 cctgggtcac tgagcgtct gataagagct gcgagcacca gacacccttc gaaattaaga
 961 gtgccaagaa atttgacact ttcaaagggg aatgcccaaa gtttgtgtt cctcttaact
 1021 caaaagtcaa agtcattcaa ccacgtgttg aaaagaaaaa gactgagggt tcatggggc
 1081 gtatacgctc tgtgtaccct gttgcctc cacaggagtg taacaatatg cactgtcta
 1141 ccttgatgaa atgtaatcat tgcgatgaag ttcatggca gacgtgcgac ttctgaaag
 1201 ccacttgtga acattgtggc actgaaaatt tagttattga aggacctact acatgtgggt
 1261 acctacctac taatgctgta gtgaaaatgc catgtcctgc ctgtcaagac ccagagattg
 1321 gacctgagca tagtgttga gattatcaca accactcaaa cattgaaact cgactccgca
 1381 agggaggtag gactagatgt ttggaggct gtgtgttgc ctatgttggc tgctataata
 1441 agcgtgccta ctgggttct cgtgctagt ctgatattgg ctgaggccat actggcatta
 1501 ctggtgacaa tgtggagacc ttgaatgagg atctccttga gatactgagt cgtgaacgtg
 1561 ttaacattaa cattgttggc gatttcatt tgaatgaaga ggttgcctc atttggcat
 1621 ctttctctgc ttctacaagt gcctttattg acactataaa gagtcttgat tacaagtctt
 1681 tcaaaacat tgtgagtc tgcggt

FIGURE 21 (A)

1 agtgttttat tagcacttca acagcttgaa gtcaaattca atgcaccagc acttcaagag
 61 gcttattata gagcccggtgc tggatgatgt gtaactttt gtgcactcat actcgcttac
 121 agtaataaaa ctgttggcga gcttgggtgat gtcagagaaa ctatgacca tcttctacag
 181 catgctaatt tggaaatctgc aaagcgagtt cttaatgtgg tgtgtaaaca ttgtggtcag
 241 aaaactacta ccitaaacggg tglagaagct gtgatgtata tgggtactct atcttatgat
 301 aatcttaaga caggtgttcc catccatgt gtgtgtggc gtgatgtac acaatatcta
 361 gtacaacaag agtcttctt tgttatgatg tctgcaccac ctgctgagta taaattacag
 421 caaggtacat tcttatgtgc gaatgagtag actggtaact atcagtgtgg tcattacact
 481 catataactg ctaaggagac cctctatcgt attgacggag ctcaccttac aaagatgtca
 541 gagtacaaag gaccagtgc tgaatgttcc tacaaggaaa catcttacac tacaaccatc
 601 aagcctgtgt cgtataaact cgaaggagtt acttacacag agattgaacc aaaattggat
 661 gggattata aaaaggataa tcttactat acagagcagc ctatagacct tgtaccaact
 721 caaccattac caaatgcgag ttttgataat ttcaaactca catgttctaa cacaaaattt
 781 gctgatgatt taaatcaaat gacaggcttc acaaagccag ctacacgaga gctatctgtc
 841 acattcttcc cagacttgaa tggcgatgta gtggctattg actatagaca ctattcagcg
 901 agtttcaaga aaggtgctaa attactgcat aagccaattg ttggcacat taaccaggct
 961 acaaccaaga caacgttcaa accaaacact tgggttttac gttgtctttg gagtacaaag
 1021 ccagtagata ctcaaattc atttgaagtt ctggcagtag aagacacaca aggaatggac
 1081 aatcttgctt gtgaaagtca acaaccacc tctgaagaag tagtggaaaa tctaccata
 1141 cagaaggaag tcatagagtg tgacgtgaaa actaccgaag tttagggcaa tgtcatactt
 1201 aaaccatcag atgaagggtg taaagtaaca caagagttag gtcatgagga tcttatggct
 1261 gcttatgtgg aaaacacaag cattaccatt aagaaacctt atgagcttcc actagcctta
 1321 gggttaaaaa caattgccac tcatgggtatt gctgcaatta atagtgttcc ttggagtaa
 1381 attttggctt atgtcaaacc attcttagga caagcagcaa ttacaacatc aaatgcgct
 1441 aagagattag cacaacgtgt gtttaacaat tatatgcctt atgtgtttac attattgttc
 1501 caattgtgta ctittactaa aagtaaccaat tctagaatta gagcttccat acctacaact
 1561 attgctaaaa atagtgttaa gagtgttctt aaattatgtt tggatgccgg catlaattat
 1621 gtgaagtcac ccaaatttcc taaattgttc acaatcgcta tgtggctatt gttgttaagt
 1681 atttgcttag gttctctaat ctgtgtaact gctgcttttg gtgtactctt atctaattt
 1741 ggtgtcctt ctattgtaa tggcggttaga gaattgtatc ttaattcgtc taacgttact
 1801 actatggatt tctgtgaagg ttcttttct tgcagcattt gtttaagtgg attagactcc
 1861 ctgtattctt atccagctct tgaaccatt caggtgacga ttcatcgta caagctagac
 1921 ttgacaattt taggtctggc cgctgagtggt gttttggcat atagtgtgt cacaattc
 1981 tttatttat taggtcttcc agctataatg caggtgttct ttggctattt tctagtcat
 2041 ttcatcagca attcttggct catgtgttt atcattagta ttgtacaaat ggcacccgtt
 2101 tctgcaatgg ttaggatgta catcttctt gcttcttct actacatag gaagagctat
 2161 gttcatatca tggatgggtg cactcttcc acttgcata tgtgtataa gcgcaatcgt
 2221 gccacacgcg ttgagtgtac aactattgtt aatggcatga agagatctt ctatgtctat
 2281 gcaaatggag gccgtggctt ctgcaagact cacaattgga attgtctcaa ttgtgacaca
 2341 ttttgactg gtagtacatt cattagtgt gaagttgtc gtgattgtc actccagttt
 2401 aaaagaccaa tcaacctac tgaccagtca tcttatattg ttgatagtgt tgcgtgaaa
 2461 aatggcgcg cttacctcta ctttgacaag gctgggtcaaa agacctatga gagacatccg
 2521 ctctcccat ttgtcaatt agacaattg agagctaaac aactaaagg ttactgcct
 2581 attaatgta tagttttga tggcaagtc aaatgcgacg agtctgttc taagtctgt
 2641 tctgttact acagtcagct gatgtgcaa cctattctgt tcttgacca agctcttga
 2701 tcaagcgtt gagatagtag tgaagtctt gtttaagtgt ttgatgctta tctgacacc
 2761 ttctagcaa cttttaggt tcttatggaa aaacttaagg cacttgttc tacagctcac
 2821 agcgagttag caaagggtgt agcttagat ggtgtcctt ctacattcgt gtcagctgcc
 2881 cgacaagggt ttgtgatac cgtgttgac acaaaggatg ttattgaatg tctcaactt
 2941 tcatcact ctgactaga agtgacaggt gacagtgtg acaattcat gctcacctat
 3001 aataagggtt aaaacatgac gccagagat ctggcgcat gtattgactg taatgcaagg

FIGURE 21 (B)

3061 cataatcaatg cccaagtagc aaaaagtcac aatgtttcac tcatctggaa tglaaaagac
 3121 tacatgtctt tatctgaaca gctgcgtaaa caaatctgta gtgctgccaa gaagaacaac
 3181 atacctttta gactaacttg tgctacaact agacagggtg tcaatgtcat aactactaaa
 3241 atctactca aggggtgtaa gattgttagt actgtttta aactatgct taaggccaca
 3301 ttattgtgcg ttcttgctgc attggtttgt tatatcgta tgccagtaaca tacattgtca
 3361 atccatgatg gttacacaaa tgaatcatt gggtacaaag ccattcagga tgggtgcact
 3421 cgtgacatca ttctactga tgattgttt gcaataaac atgctgggtt tgacgcatgg
 3481 tttagccagc gtgggtggtc atacaaaaat gacaaaagct gccctgtagt agctgctatc
 3541 attacaagag agattgggtt catagtgcct ggcttaccgg gtactgtgct gagagcaatc
 3601 aatgggtgact tcttgcatit tctacctgt gtttttagtg ctgttgcaa catttgctac
 3661 acaccttcca aactcattga gtatagtgt ttgtctacct ctgcttgct tctgtctgt
 3721 gaggtacaa ttttaagga tgctatggc aaacctgtgc catattgtta tgacactaat
 3781 ttgctagagg gtctatttc ttatagttag ctctgtccag acactgtta tggcttatg
 3841 gatgggtcca tcatcagtt tctaacact tacctggagg gttctgttag agtagtaaca
 3901 acttttgatg ctgagtactg tagacatggt acatgcgaaa ggtcagaagt aggtatttgc
 3961 ctatctacca gtggtatag gtcttctaat aatgagcatt acagagctct atcaggagt
 4021 ttctgtggtg ttgatgcgat gaatctcata gctaacatct ttactcctct tgtgcaacct
 4081 gtgggtgctt tagatgtgc tgcttcagta gtggctggtg gtattattgc catattgggtg
 4141 acttgtgctg cctactactt tatgaaatc agacgtgtt ttggtgagta caacctgtt
 4201 gttgtgcta atgcacttt gttttgatg tctttacta tactctgtct ggtaccagct
 4261 tacagcttcc tgcgggagct ctactcagtc ttctactgt acttgacatt ctatttacc
 4321 aatgatgtt cattctggc tcccttcaa tgggttgcca tgtttctcc taltgtcct
 4381 ttttgataa cagcaatcta tgtattctgt atttcttga agcactgcca ttggttctt
 4441 aacaactatc ttaggaaaag agtcatgtt aatggagtta catttagtac ctctgaggag
 4501 gctgcttgt gtacctttt gctcaacaag gaaatgtacc taaaattgcg tagcgagaca
 4561 ctgttgccac ttacacagta taacaggat ctgtctctat ataacaagta caagtattc
 4621 agtggagcct tagalactac cagctatcgt gaagcagctt gctgccactt agcaaaggct
 4681 cttaatgact tttagcaactc aggtgtgat gtctctacc aaccaccaca gacatcaatc
 4741 acttctgctg ttctgcagag tgggttagg aaaatggcat tccgctcagg caaagttgaa
 4801 ggggtcatgg tacaagtaac ctgtggaact acaactctta atggattgtg gttggatgac
 4861 acagtatact gtccaagaca tgcatttgc acagcagaag acatgctta tcttaactat
 4921 gaagatctgc tcatcgcaa atccaacct agctttctg tttaggtcgg caatgttcaa
 4981 ctctgtgta ttggccattc tatgcaaat tgtctgctta ggcttaaagt tgatactct
 5041 aaccctaaga caccacagta taaattgtc cgtatccaac ctggtcaaac atttcagtt
 5101 ctatcatgct acaatgggtc accatctggt gttatcagt gtgcatgag acctaactat
 5161 accattaaag gttcttctc taatggatca tgggttagtg ttggtttta cattgattat
 5221 gattgcgtgt cttctgcta tatgcatcat atggagcttc caacaggagt acacgtggt
 5281 accgacttag aaggtaaatt ctatgttcca ttgttgaca gacaaactgc acaggctgca
 5341 ggtacagaca caaccataac attaatgtt ttggcatggc tgtatgctgc tgttatcaat
 5401 ggtgataggt ggtttctta tagattcacc actacttga atgactttaa cctgttgga
 5461 atgaagtaca actatgaacc ttgacacaa gatcatgtg acatattggg acctcttct
 5521 gctcaaacag gaattgccgt cttagalatg tgtgctgct tgaagagct gctgcagaat
 5581 ggtatgaatg gtcgtactat ccttggtagc actatttag aagatgagtt tacaccatt
 5641 gatgttga gacaatgctc tgggttacc ttccaaggta agttcaagaa aattgttaag
 5701 ggcactcatc attggatgct ttaacttcc ttgacatcac tattgattct tttcaaagt
 5761 acacagtgg cactgtttt cttgtttac gagaatgct tcttgccatt tactcttgg
 5821 attatggcaa ttgtgcatg tgctatgct ctgttaagc ataagcacgc attctgtgc
 5881 ttgttctgt tacttctct tgcaacagt gcttactta atatggctta catgcctgt
 5941 agctgggtga tgcgtatcat gacatggctt gaattggctg acactagctt gctggttat
 6001 aggcctaagg attgtgttat gtatgcttca gcttagttt tgcctattct catgacagct
 6061 cgcactgtt atgatgatg tgcagacgt gtttgacac tgaatgtt cattacatt

FIGURE 21 (C)

6121 gtttacaag tctaciatgg taatgcttta gatcaagcta ttccatgtg ggccttagt
 6181 atttctgtaa cctctaacta ttctgggtgc gttacgacta tcatgtttt agctagagct
 6241 atagtgttg tgtgtgtga gtattatcca ttgtattta ttactggcaa caccttacag
 6301 tgtatcatgc ttgtttattg ttcttaggc tattgttgc gctgctact tggcctttc
 6361 tgtttactca accgttact caggcttact ctgggtgtt atgactact ggtctctaca
 6421 caagaattta ggtatatgaa ctcccagggg ctttgcctc ctaagagtag tattgatgc
 6481 ttcaagctta acattaagt gttgggtatt ggaggtaaac catgtatcaa ggttgctact
 6541 gtacagtcta aaatgtctga cgtaaagtc acatctgtg tactgtctc ggttctcaa
 6601 caacttagag tagagtcac ttctaaattg tgggcacaat gtgtacaact ccacaatgat
 6661 attcttctg caaaagacac aactgaagct ttcgagaaga tggtttctt ttgtctgtt
 6721 ttgtatcca tgcaggggtc tgtagacatt aatagggtgt gcgaggaaat gctcgataac
 6781 cgtgctactc ttcaggctat tgcctcagaa tttagttct taccatcata tgcgcttat
 6841 gccactgccc aggaggccta tgagcaggct gtagctaag gtgattctga agtcgttctc
 6901 aaaaagttaa agaatcttt gaatgtggt aaatctgagt ttgaccgtga tgcgtccatg
 6961 caacgcaagt tggaaaagat ggcagatcag gctatgccc aaagtacaa acaggcaaga
 7021 tctgaggaca agagggccca agtcgttct gctatgcaa caatgctct cactatgcta
 7081 aggaagcttg ataatagc acttaacaac attatcaaca atgcgctga tggttgtgtt
 7141 ccactcaaca tcataccatt gactacagca gccaaactca tggttgtgtt cctgattat
 7201 ggtacctaca agaacacttg tgatggtaac acctttacat atgcatctgc actctgggaa
 7261 atccagcaag ttgtgatgc gtagagcaag attgttcaac ttagtgaaat taacatggac
 7321 aattcacaa atttggctg gcctcttatt gttacagctc taagagccaa ctacagctgtt
 7381 aaactacaga ataataact gactccagta gcactacgac agatgtctg tgcggctggt
 7441 accacacaaa cagctgtac tgatgacaat gcactgcct actatacaa ttcgaaggga
 7501 ggtaggttg tgcgtgcatt actatcagac caccaagatc tcaaatgggc tagattccct
 7561 aagagtgatg gtacaggtac aatttacaca gaactggaac cacctttagt gttgttaca
 7621 gacacaccaa aagggcctaa agtgaaatac ttgtactca tcaaaggctt aaacaaccta
 7681 aatagaggta tgggtctggg cagtttagct gctacagtac gtcttcaggc tggaaatgct
 7741 acagaagtac ctgccaattc aactgtctt tcttctgtg ctttgcagt agacctgct
 7801 aaagcatata aggattacct agcaagtggg ggacaaccaa tcaccaactg tgtgaagatg
 7861 ttgtgtacac acactgtac aggacaggca attactgtaa caccagaagc taacatggac
 7921 caagatcct ttgggtgtgc tcatgtgt ctgtattga gatcccat taccatcca
 7981 aatcctaaag gattctgtga ctgaaaggt aagtacgtcc aaatacctac cacttgtgt
 8041 aatgaccag tgggttttac acttagaaac acagtctgta ccgtctcgg aatgtggaaa
 8101 ggttatggct gtagttgtga ccaactccgc gaaccttga tgcagtctgc ggatgcatca
 8161 acgtttttaa acgggttgc ggtgtaagt cagccgtct tacaccgtgc ggcacaggca
 8221 ctagtactga tgcgtctac agggctttg atatttaca cgaaaaagt gctggtttg
 8281 caaagttcct aaaaactaat tgcgtctgct tccaggagaa ggaataggaa ggcaattat
 8341 tagactctta cttttagtt aagaggcata ctatgtctaa ctaccaacat gaagagacta
 8401 ttataactt ggttaaagat tgcacagcgg ttgctgtcca tgactttc aagttagag
 8461 tagatggtga catgtacca catatacac gtcagcgtc aactaaatac acaatggctg
 8521 atttagtcta tgcctacgt catittgat agggttaatt tgatacatta aaagaaatac
 8581 tgcacata caattgtgt gatgatgatt attcaataa gaaggattgg tatgactcg
 8641 tagagaatcc tgacatctta cgcgtatag ctaacttagg tgagcgtga cgccaatcat
 8701 tattaaagac tgtacaattc tgcgatgcta tgcgtgatgc aggcattga ggcgtactga
 8761 cattagataa tcaggatctt aatgggaact ggtacgatt cggtgattc gtacaagtag
 8821 caccaggctg cggagtctt attgttgatt catattactc attgctgat cccatctca
 8881 cttgactag ggcattggct gctgagtcct atatggatgc tgatctgca aaaccactta
 8941 itaagtggga ttgtgaaa talgattta cggaagagag actttgtctc ttcgaccgt
 9001 attttaata ttgggaccag acataccatc ccaattgtat taactgttg gatgataggt
 9061 gtatccttca ttgtgcaaac ttaatgtgt tatttctac tgtgttcca cctacaagtt
 9121 ttggaccact agtaagaaaa atattgtag atggtgtcc tttgtgtt tcaactggat
 9181 accatttctg tgagttagga gtcgtacata atcaggatgt aaactacat agctcgcgc

FIGURE 21 (D)

9241 tcagtttcaa ggaactttta gtgtatgctg ctgatccagc tatgcatgca gcttctggca
9301 atttattgct agataaacgc actacatgct tticagtagc tgcactaaca aacaatgttg
9361 cttttcaaac tgtcaaaccg ggtaatttta ataaagactt ttatgacttt gctgtgtcta
9421 aaggttttct taaggaagga agttctgttg aactaaaaca cttcttcttt gctcaggatg
9481 gcaacgctgc tatcagtgat tatgactatt atcggtataa tctgccaaca atgtgtgata
9541 tcagacaact cctattcgta gttagaagtg ttgataaata ctttgattgt tacgatggtg
9601 gctgtattaa tgccaaccaa gtaatcgta acaatctgga taaatcagct ggtttcccat
9661 ttaataaatg gggtaaggct agactttatt atgactcaat gagttatgag gatcaagatg
9721 cacttttcgc gtatactaag cgtaatgca tccctactat aactcaaatg aatcttaagt
9781 atgccattag tgcaaagaat agagctcgca ccgtagctgg tgtctctatc ttagtagtacta
9841 tgacaaatag acagtttcat cagaaattat tgaagtcaat agccgccact agaggagcta
9901 ctgtggtaat tggaacaagc aagttttacg gtggctggca taatatgta aaaactgttt
9961 acagtgatgt agaaactcca caccattatg gttgggatta tccaaatgt gacagagcca
10021 tgcctaacat gcttaggata atggcctctc ttgttcttgc tcgcaaacat aacacttgct
10081 gtaacttate acaccgttgc tacagggttag ctaacgagtg tgcgcaagta ttaagtgaga
10141 tggatcatgt tggcggctca ctatatgta aaccagggtg aacatcatcc ggtgatgcta
10201 caactgctta tgctaatagt gtctttaaca ttgtcaagc tgttacagcc aatgtaaag
10261 cacttcttgc aactgatggt aataagatag ctgacaagta tgtccgcaat ctacaacaca
10321 ggctctatga gtgtctctat agaaataggg atgttgatca tgaattcgtg gatgagtttt
10381 acgcttacct gcgtaaacat ttctccatga tgattcttgc tgatgatgcc gttgtgtgct
10441 ataacagtaa ctatgcggct caagggttag tagctagcat taagaacttt aaggcagttc
10501 ttattatca aaataatgtg ttcatgtctg aggcaaatg ttggac

FIGURE 22

1 gtaccticat gaaggtcacc aaactgctgc atttagagac gtacttgttg ttttaaataa
 61 acgaacaaat taaaatgtct gataatggac cccaatcaaa ccaacgtagt gcccccgca
 121 ttacatttgg tggaccaca gattcaactg acaataacca gaatggagga cgcaatgggg
 181 caaggccaaa acagcgccga cccaagggt tacccaataa tactgctct tggttcacag
 241 ctctactca gcatggcaag gaggaactta gattccctcg aggccagggc gttccaatca
 301 acaccaatag tggccagat gaccaaattg gctactaccg aagagctacc cgacgagttc
 361 gtggtggtga cggcaaaatg aaagagctca gcccagatg gtacttctat tacctaggaa
 421 ctggcccaga agcttcactt ccctacggcg ctaacaaaga aggcacgta tgggttgcaa
 481 ctgagggagc ctgaataca ccaaagacc acattggcac ccgcaatcct aataacaatg
 541 ctgccaccgt gctacaactt cctcaaggaa caacattgcc aaaaggcttc tacgcagagg
 601 gaagcagagg cggcagtc aa gcctcttctc gctcctcctc acgtagtcgc ggtaattcaa
 661 gaaattcaac tctggcagc agtaggggaa attctcctgc tcgaatggct agcggaggtg
 721 gtgaaactgc cctcgcgcta ttgctgctag acagattgaa ccagcttgag agcaaagttt
 781 ctggtaaagg ccaacaacaa caaggccaaa ctgtactaa gaaatctgct gctgaggcat
 841 ctaaaaagcc tcgcaaaaaa cgtactgcca caaacagta caacgtcact caagcatttg
 901 ggagacgtgg tccagaacaa acccaaggaa atttcgggga ccaagacctt atcagacaag
 961 gaactgatta caaacattgg ccgcaaattg cacaatttgc tccaagtgc tctgcattct
 1021 ttggaatgtc acgcattggc atggaagtca caccitcggg aacatggctg acttatcatg
 1081 gagccattaa attggatgac aaagatccac aattcaaaga caacgtcata ctgctgaaca
 1141 agcacattga cgcatacaaa acattccac caacagagcc taaaaaggac aaaaagaaaa
 1201 agactgatga agctcagcct ttgccgcaga gacaaaagaa gcagcccact gtgactcttc
 1261 ttctgcggc tgacatggat gatttctcca gacaattca aaattccatg agtggagctt
 1321 ctgctgattc aactcaggca taaacactca tgatgaccac acaaggcaga tgggctatgt
 1381 aaacgttttc gcaattccgt ttacgataca tagtctactc ttgtgcagaa tgaattctcg
 1441 taactaaaca gcacaagtag gtttagttaa cttaaatctc acatagcaat cttaataca
 1501 tgtgtaacat tagggaggac ttgaaagagc caccacattt tcatcgaggc cagcggaggt
 1561 acgategagg gtacagtga taatgctagg gagagctgcc tatatggaag agccctaag

FIGURE 23

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQHGKEEL
RFPRGQGVPIINTNSGPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYLLGTGPEASLPYGANKEG
IVWVATEGALNTPKDHIGTRNPNNNAATVLQLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNS
RNSTPGSSRGNSPARMASGGGETALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPR
QKRTATKQYNVTQAFGRRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEV
TPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTPEPKDKKKKTDEAQPLPQRQKKQ
PTVTLLPAADMDDFSRQLQNSMSGASADSTQA

Figure 24

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 25

(A)

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKGIFYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

(B)

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKGIFYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 26

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATTRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKGIFYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 27

MFIFLLFLTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFLYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGITITDAV
DCSQNPPLAELKCSVKSFEDKGIYQTSNFRVVPSPGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADS FVVKGD
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKLRP
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTTGIGYQPYRVVLSFELLNAPA
TVCGPKLSTDLIKQCVNFNFNGLTGTGVLTTPSSKRFQPFQQFGRDVSDFTDSVRDPK
TSEILDISPSCSFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGA EHVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNNTIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRDKVEAE
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAI CHEGKAYFPREGVFVFNGT SWFITQ
RNFFSPQIIITDNTFVSGNCDVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMTILLCCMTSCCSCLKGACSCGSCCKFDEDDSEPV LKGVKLHYT

FIGURE 28

MFIFLLFLTTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIFPKDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFLYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAAYFVGYLKPTTFMLKYDENGITIDAV
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSPGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLNSTFFSTFKCYGVSATKLNLCFSNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKLRP
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTTGIGYQPYRVVLSFELLNAPA
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLTTPSSKRFQPFQQFGRDVSDFTDSDVRDPK
TSEILDISPFAFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGAHEVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNNITIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRDKVEAE
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAICHEGKAYFPREGVFVFNGTSWFITQ
RNFFSPQIIITDNTFVSGNCDVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMVTILLCCMTSCCCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

FIGURE 29

MFIFLLFLTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIISNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMI FDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGS LYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVG YLKPTTFMLKYDENGITITDAV
DCSQNPLAELKCSVK SFEIDKGIYQTSNFRVVP SGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTGNIDATSTGNYDYKYRYLRHGKLRP
FERDISNVPFSPDGK PCTPPALNCYWPLNDYGFYTTTGIGYQPYRVV VLSFELLNAPA
TVC GPKLSTD LIKNQCVNFNFNGLTGTGVLT PSSKRFPQPFQ QFGRDVSDFTDSVRDPK
TSEILDISP CSFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGA EHVDTSYECDIPIGAGICASYHTVSL LRSTSQKSIVAYTMSLG
ADSSIAYSNN TIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLPFNKVTLADAGFMKQYGECLGDINARDL ICAQKFNGLTVLPPLLTD DMIAAYT
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSR LDKVEAE
VQIDRLITGRLQSLQTYVTQQLIRAAGIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHV TYVPSQERNFTTAPAI CHEGKAYFPREGVFVFNGTSWFITQ
RNFFSPQIIITDNTFVSGNCDVVIGI INNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMTILLCCMTSCCSCLKGACSCGSCCKFDEDDSEPV LKGVKLHYT

FIGURE 30

(A)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILLNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHPLGRCDI
KDLPKETVATSRTLSTYYKLGASQRVGTDSGFAAYNNRYRIGNYKLNTDHAGSNDNIAL
LVQ

(B)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILLNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHSLGRCDI
KDLPKETVATSRTLSTYYKLGASQRVGTDSGFAAYNNRYRIGNYKLNTDHAGSNDNIAL
LVQ

(C)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILPNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHSLGRCDI
KDLPKETVATSRTLSTYYKLGASQRVGTDSGFAAYNNRYRIGNYKLNTDHAGSNDNIAL
LVQ

(D)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILPNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHSLGRCDI
KDLPKETVATSRTLSTYYKLGASQRVGTDSGFAAYNNRYRIGNYKLNTDHAGSNDNIAL
LVQ

FIGURE 31

(A)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

(B)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

(C)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSPEGVPDLLV

(D)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSPEGVPDLLV

(E)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

FIGURE 32 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERS DKS YEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCGN
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA
VTILDGISEQSLRLVDAMVYTSDLLTNSVIMAYVTGGLVQQTSQWLSNLLGTTVEKL
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV
NKALEMCIDQVTIAGAKLRSLNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT
FLEGDSHDTVLTSEEVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLEIKDKEQ
YCALS PGLLATNNVFRLKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE
KCSVYTVESGTEVTEFACVVAEAVVKTLQPVS DLLTNMGIDLDEWSVATFYLFDDAGE
ENFSSRMYSFYPPDEEEEDDAECEEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTDNVAIKCVDIVKEAQSA
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQVCVQT
VRTQVYIAVNDKALYEQVVM DYLDNLKPRVEAPKQEEPNTEDSKTEEKSVVQKPVDV
KPKIKACIDEVTTTLEETKFLTNKLLLFADINGKLYHDSQNMLRGEDMSFLEKDAPYM
VGDVITSGDITCVVIPSKKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTL EEAKT
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI
QRKYKGIKIQEGIVDYGVRFFFYTSKEPVASIIITKLNSLNEPLVTMPIGYVTHGFNLE
EAARCMRSLKAPAVVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 32 (B)

QRTELGVEFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLSLLSLREVKTIKVFTTVD
NTNLHTQLVDMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFFVLPSDDTLRSEAFE
YYHTLDESFLGRYMSALNHTKKWKFPQVGGLTSIKWADNNCYLSSVLLALQQLEVKN
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTTHLLQHANLESAKRVLN
VVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTGVSIPCVCGRDATQYLVQQESSFVMM
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD
VFYKETSYYTTTIKPVSYKLDGVTYTEIEPKLDGYKKNAYYTEQPIDLVPTQPLPNA
SFDNFKLTCSNTKFADDLNQMTGFTKPPASRELSVTFFPDLNGDVVAIDYRHYSASFKK
GAKLLHKPIVWHINQATTKTTFKPNTWCLRCLWSTKPVDTSNSFEVLAVEDTQGMDNL
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN
CAKRLAQRVFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIKNSVKSVAKLCLDA
GINYVKSPKFSKLFTIAMWLLLLSICLGLSICVTAAFGVLLSNFGAPSYCNGVRELYL
NSSNVTMTDFCEGSFPCSLCLSGLDSDSYPALETIQVTISSYKLDLTILGLAAEWVL
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF
ASFYYIWKSYVHIMDGCTSSTCMMCYNRNRATRVECTTIVNGMKRSFYVYANGGRGFC
KTHNWNCLNCDTFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSVAVKNGALHL
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGS LPINVIVFDGKSKCDESASKSASVYY
SQLMCQPILLLDQVLVSDVGDSTEVSVKMFDAYVDTFSATFSVPMEKCLKALVATAHSE
LAKGVALDGVLTSTFVSAARQGVVDTDVDTKDVI ECLKLSHHS DLEVTDGSCNNFMLTY
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMSLSEQLRKQIRSAKK
NNIPFRLTCATTRQVVNVIITTKISLKGKIVSTCFKLMLKATLLCVLAALVCYIVMPV
HTLSIHDGYTNEIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC
PVVAAIITREIGFIVPGLPGTVLRAIN GDFLHFLPRVFSAVGNICYTPSKLIEYSDFA
TSACVLAAECTIFKDAMGKVPYCYDTNLLEGSISYSELRPDTRYVLMDGSI IQFPNT
YLEGSRVVTTFDAEYCRHGTCERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDAMN

FIGURE 32 (C)

LIANIFTPLVQPVGALDVSASVVAGGI IAILVTCAAYYFMKFRRVFGEYNHVVAANAL
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFYFTNDVSFLAHLQWFAMFSPIVPFWIT
AIYVFCISLKHCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL
PLTQYNRYLALYNKYKYFSGALDTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI
TSAVLQSGFRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDDTVYCPRHVICTAEDMLNP
NYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLRLKVDTSNPKTPKYKFVRIQPGQ
TFSVLACYNGSPSGVYQCAMRPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHMELP
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNVLAWLYAAVINGDRWFLNRFTTT
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS
TILEDEFTPFDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLILVQSTQWSLFFF
VYENAFLPFTLGIMAIAACAMLLVKHKHAFCLCLFLLPSLATVAYFNMVYMPASWVMRI
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVI TLVYKV
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAI VFVCVEYYPLLFITGNTLQCI
MLVYCFLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFMYMNSQGGLLPKSSIDA
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH
NDILLAKDTTEAFEKMOVSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS
YAAYATAQEAYEQAVANGDSEVVLLKKLKKSLNVAKSEFDRDAAMQRKLEKMADQAMTQ
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNI INNARDGCVPLNII PLTTAAK
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKI VQLSEINMDNSPNLAWPLI
VTALRANSVAVKLQNNELSPVALRQMSCAAGTTQTACTDDNALAYYNNNSKGGRFVLALL
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGLNNLNRMVL
GSLAATVRLQAGNATEVPANSTVLSFCAFAVDPAKAYKDYLASGGQPI TNCVKMLCTH
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNGFAV

FIGURE 33 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCGN
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA
VTILDGISEQSLRLVDAMVYTSDLLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV
NKALEMCIDQVTIAGAKLRSLNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT
FLEGDSHDTVLTSEEVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ
YCALS PGLLATNNVFRLKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE
KCSVYTVESGTEVTEFACVVAEAVVKTLQPVS DLLTNMGIDLDEWSVATFYLFDDAGE
ENFSSRMYSFYPPDEEEEDDAECEEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTDNVAIKCVDIVKEAQSA
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQVCVQT
VRTQVYIAVNDKALYEQVVM DYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV
KPKIKACIDEVTTTLEETKFLTNKLLLFADINGKLYHDSQNMLRGEDMSFLEKDAPYM
VGDVITSGDITCVVIPSKKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTL EEAKT
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI
QRKYKGIKIQEGIVDYGVRFFFYTSKEPVASIIITKLNSLNEPLVTMPIGYVTHGFNLE
EAARCMRSLKAPAVVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 33 (B)

QRTELGVEFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLSLLSLREVKTIKVFTTVD
NTNLHTQLVDMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFFVLPSDDTLRSEAFE
YYHTLDESFLGRYMSALNHTKKWKFPQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHTLLQHANLESAKRVLN
VVCKHCGQKTTTTLTGVEAVMYMGTLSDNLKTGVSIPCVCGRDATQYLVQQESSFVMM
SAPPAEYKLQQGTFLCANEYTGNYQCGRHYTHITAKETLYRIDGAHLTKMSEYKGPVTD
VFYKETSYYTTTIKPVSYKLDGVITYTEIEPKLDGYYKKDNAYYTEQPIDLVPTQPLPNA
SFDNFKLTCSNTKFADDLNQMTGFTKPPASRELSVTFFPDLNGDVVAIDYRHYSASFKK
GAKLLHKPIVWHINQATTKTTFKPNTWCLRCLWSTKPVDTSSNSFEVLAVEDTQGMNDL
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN
CAKRLAQRVFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPITIAKNSVKSVAKLCLDA
GINYVKSPKFSKLFTIAMWLLLLSICLGLSICVTAAFGVLLSNFGAPSYCNGVRELYL
NSSNVTTMDFCEGSFPCSLCLSGLDSDSYPALETIQVTISSYKLDLTILGLAAEWVL
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRA TRVECTTIVNGMKRSFYVYANGGRGFC
KTHNWNCLNCDTFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSVAVKNGALHL
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGS LPINVIIVFDGKSKCDESASKSASVYY
SQLMCQPIILLLDQALVSDVGDSTEVS VKMFDAYVDTFSATFSVPMEK LKALVATAHSE
LAKGVALDGV LSTFVSAARQGVVD TDVDTKDVI ECLKLSHHS DLEVTDGSCNNFMLTY
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMSLSEQLRKQIRSAKK
NNIPFRLTCATTRQVVNVIITTKISLKGGKIVSTCFKLMLKATLLCVLAALVCYIVMPV
HTLSIHDGYTNEIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC
PVVAAIITREIGFIVPGLPGTVLRAIN GDFLHFLPRVFS AVGNICYTPSKLIEYS DFA
TSACVLAAECTIFKDAMGKVPYCYDTNLLEGSISYSELRPDTRYV LMDGSI IQFPNT
YLEG SVRVVTTFDAEYCRHGTCERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDAMN

FIGURE 33 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRVFGEYNHVVAANAL
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFYFTNDVSFLAHLQWFAMFSPIVPFWIT
AIYVFCISLKHCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL
PLTQYNRYLALYNKYKYFSGALDTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI
TSAVLQSGFRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDDTVYCPRHVICTAEDMLNP
NYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLLRLKVDTSNPKTPKYKFVRIQPGQ
TFSVLACYNGSPSGVYQCAMRPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHMELP
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNLVLAWLAAVINGDRWFLNRFTTT
LNDFNLVAMKYNIEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS
TILEDEFTPFDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLILVQSTQWSLFFF
VYENAFLPFTLGIMAIAACAMLLVKHKHAFCLCLLPSLATVAYFNMVYMPASWVMRI
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV
YYGNALDQAISMWALVISVTSNYSGVTTIMFLARAI VFVCVEYYPLLFITGNTLQCI
MLVYCFLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSSTQEFYMNSSQGLLPKSSIDA
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH
NDILLAKDTTEAFEKMSVLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS
YAAAYATAQEAYEQAVANGDSEVVLKKLKKSLNVAKSEFDRDAAMQRKLEKMADQAMTQ
MYKQARSEDKRAKVTSAMQTMFTMLRKLDNDALNNIINNARDGCVPLNI I PLTTAAK
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKI VQLSEINMDNSPNLAWPLI
VTALRANSVAVKLQNNELSPVALRQMSCAAGTTQTACTDDNALAYNNNSKGGRFVLALL
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGLNNLNRGMVL
GSLAATVRLQAGNATEVPANSTVLSFCAFAVDPAKAYKDYLASGGQPI TNCVKMLCTH
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFFKRVCVSAARLTPCGTG
TSTDVVYRAFDIYNEKVAGFAKFLKTNCCRFQEKDEEGNLLDSYFVVKRHTMSNYQHE

FIGURE 33 (D)

ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQRLTKYTMADLVYALRHFDEGNCDT
LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFCDAMRDA
GIVGVLTLDNQDLNGNWYDFGDFVQVAPGCGVPIVDSYYSLLMPILTLTRALAAESHM
DADLAKPLIKWDLKDYDFTEERLCLFDRYFKYWDQTYHPNCINCLDDRCILHCANFNV
LFSTVFPPTSFGPLVRKIFVDGVPFVVSTGYHFRELGVVHNQDVNLHSSRLSFKELLV
YAADPAMHAASGNLLLDKRTTCFSVAALTNNVAFQTVKPGNFNKNDFYDFAVSKGFFKE
GSSVELKHFFFAQDGNAAISDYDYRYNLPMTCDIRQLLFVVEVVDKYFDCYDGGCIN
ANQVI VNNLDKSAGFPFNKWGKARLYYDSMSYEDQDALFAYTKRNVIPTITQMNLKYA
ISAKNRARTVAGVSICSTMTNRQFHQKLLKSIAATRGATVVIGTSKFYGGWHNMLKTV
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLRKHNTCCNLSHRFYRLANCAQVL
SEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVR
NLQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMILSDDAVVCYNSNYAAQGLVASI
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPYPDPSRI
LGAGCFVDDIVKTDGTLMIERFVSLAIDAYPLTKHPNQEYADV FHLYLQYIRKLHDEL
TGHMLDMYSVMLTNDNTSRYWEPEFYEAMYTPHTVLQAVGACVLCNSQTSRLRCGACIR
RPFLCCKCCYDHVISTSHKLVLSVNPYVCNAPGCDVTDVTQLYLGGMSYYCKSHKPPI
SFPLCANGQVFGLYKNTCVGSDNVTDFNAIATCDWTNAGDYILANTCTERLKLFAAET
LKATEETFKLSYGIATVREVLSDRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI
GEYTFEKGDYGDVAVYRGTTTYKLVNGDYFVLTSHTVMPLSAPTLVPQEHYVRITGLY
PTLNI SDEFSSNVANYQKVGMQKYSTLQGPPGTGKSHFAIGLALYYPSARIVYTACSH
AAVDALCEKALKYLPIDKCSRIIPARARVECFDKFKVNSTLEQYVFCTVNALPETTAD
IVVFDEISMATNYDLSVVNARLRKHYVYIGDPAQLPAPRTLLTKGTLEPEYFNSVCR
LMKTIGPDMFLGTCRRCPAEIVDTV SALVYDNKLKAHKDKSAQCCKMFYKGVITHDVS
SAINRPQIGVVREFLTRNPAWRKAVFISPYN SQNAVASKILGLPTQTV DSSQGSEYDY
VIFTQTTETAHSCNVNRFNVAITRAKIGILCIMS DRDLYDKLQFTSLEIPRRNVATLQ

FIGURE 33 (E)

AENV TGLFKDCSKIITGLHPTQAPTHLSVDIKFKTEGLCVDIPGIPKDMTYRRLISMM
GFKMNYQVNGYPNMFITREEAIRHVRAWIGFDVEGCHATRDAVG TNLPLQLGFSTGVN
LVAVPTGYVDTENNTFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVR IKIVQMLSDTL
KGLSDRVV FVLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG
FDYVYNPF MIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV
DWSVEYPIIGDEL RVNSACRKVQHMVVK SALLADKFPVLHDIGNPKAIKCVPQAEVEW
KFYDAQPCSDKAYKIEELFY SYATHHDKFTDGVCLFWNCNVDRYPANAIVCRFDTRVL
SNLNLPGCDGGS LYVNKHAFHTPAFDKSAFTNLKQLPFFYYS DSPCESHGKQVVS DID
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT
FTRLQSL ENVAYNVVNKGHFDGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV
AFELWAKRNIKPVPEIKILNNLGVDIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP
TESACSSLTVLFDGRVEGQVDLFRNARNGVLITEGSVKGLTPSKGPAQASVNGVTLIG
ESVKTQFN YFKKVDGIIQQLPETYFTQSRDLEDFKPRSQMETDFLELAMDEFIQRYKL
EGYAFEHIVYGDFSHGQLGGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT
GSSKCVCSVIDLLLD DFVEI IKSQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFYP
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN
TLTLAVPYNMRVIHFGAGSDKGVAPGTAVLRQWLPTGTLLVDSDLNDFVSDADSTLIG
DCATVHTANKWDLII SDMYDPRTKHVTKENDSKEGFFTYLCGFIKQKLALGGSIAVKI
TEHSWNADLYKLMGHFSWWTAFVTNVNASSSEAFLIGANYLGKPKEQIDGYTMHANYI
FWRNTNPIQLSSYS LFDMSKFPLKLRGTAVMSLKENQINDMIYSLLEKGRLIIRENNR
VVVSSDILVNN

FIGURE 34 (A)

RVCGVSAARLTPCGTGTSTDVVYRAFDIYNEKVAGFAKFLKTNC
CRFQEKDEEGNLLDSYFVVKRHTMSNYQHEETIYNLVKDCPAVAVHDFFKFRVDGDMV
PHISRQRLTKYTMADLVYALRHFDEGNCDTLKEILVTYNCCDDDYFNKKDWYDFVENP
DILRVYANLGERVRQSLLKTVQFCDAMRDAGIVGVLTLDNQDLNGNWYDFGDFVQVAP
GCGVPIVDSYYSLLMPILTLTRALAAESHMDADLAKPLIKWDLKDYDFTEERLCLFDR
YFKYWDQTYHPNCINCLDDRCILHCANFNVLFSTVFPPTSFGPLVRKIFVDGVPFVVS
TGYHFRELGVVHNQDVNLHSSRLSFKELLVYAADPAMHAASGNLLLDKRTTCFSVAAL
TNNVAFQTVKPGNFNKFDFYDFAVSKGFFKEGSSVELKHFFFAQDGNAAISDYDYRYN
LPTMCDIRQLLFVVEVVDKYFDCYDGGCINANQVIVNNLDKSAGFPFNKWGKARLYYD
SMSYEDQDALFAYTKRNVIPITITQMNLYAISAKNRARTVAGVSICSTMTNRQFHQKL
LKSIAATRGA TVVIGTSKFYGGWHNMLKTVYSDVETPHLMGWDYPKCDRAMPNMLRIM
ASLVLARKHNTCCNLSHRFYRLANECAQVLSEMVMCGGSLYVKPGGTSSGDATTAYAN
SVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRLYECLYRNRDVDHEFVDEFYAYL
RKHFSSMILSDDAVVCYNSNYAAQGLVASIKNFKAVLYYQNNVFMSEAKCWTETDLTK
GPHEFCSQHTMLVKQGDDYVYLPYPDPSRILGAGCFVDDIVKTDGTLMIERFVSLAID
AYPLTKHPNQEYADV FHLYLQYIRKLHDELTGHMLDMYSVMLTNDNTSRYWEPEFYEA
MYTPHTVLQAVGACVLCNSQTSLRGACIRRPFLCCKCCYDHVISTSHKLVLSVNPYV
CNAPGCDVTDVTQLYLGGMSYYCKSHKPPISFPLCANGQVFGLYKNTCVGSDNVTDFN
AIATCDWTNAGDYILANTCTERLKLFAAETLKATEETFKLSYGIATVREVLSDRELHL
SWEVGKPRPPLNRNYVFTGYRVTKNSKVQIGEYTFEKGDYGDVAVYRGTTTYKLVNVD
YFVLTSHTVMPLSAPTLVPQEHYVRITGLYPTLNI SDEFSSNVANYQKVGMQKYSTLQ
GPPGTGKSHFAIGLALYYPSARIVYTACSHA AVDALCEKALKYLPIDKCSRIIPARAR
VECFDKFKVNSTLEQYVFCTVNALPETTADIVVFDEISMATNYDLSVVNARLRAKHYV
YIGDPAQLPAPRTLTKGTLEPEYFNSVCRLMKTIGPDMFLGTCRRCPAEIVDTVSA
LYDNKLKAHKDKSAQCCKMFYKGVITHDVSSAINRPQIGVVREFLTRNPAWRKAVFIS
PYNSQNAVASKILGLPTQTVDSSQGSEYDYVIFTQTTETAHSCNVNRFNVAITRAKIG

FIGURE 34 (B)

ILCIMS DRDLYDKLQFTSLEIPRRNVATLQAENV TGLFKDCSKIITGLHPTQAPTHLS
VDIKFKTEGLCVDIPGIPKDMTYRRLISMMGFKMNYQVNGYPNMFITREEAIRHVRAW
IGFDVEGCHATRDAVG TNLPLQLGFSTGVNLVAVPTGYVD TENNTEFTRVNAKPPPGD
QFKHLIPLMYKGLPWNVVR IKIVQMLSDTLKGLSDRVV FVLWAHGFELTSMKYFVKIG
PERTCCLCDKRATCFSTSSDTYACWNH SVGFDYVYNPF MIDVQQWGFTGNLQSNHDQH
CQVHGNAHVASCDAIMTRCLAVHECFVKRVDWSVEYPIIGDEL RVNSACRKVQH MVVK
SALLADKFPVLHDIGNPKAIKCVPQAEVEWK FYDAQPCSDKAYKIEELFYSYATHHDK
FTDGVCLFWNCNVDRYPANAIVCRFDTRVLSNLNLPGCDGGS LYV NKHAFHTPAFDKS
AFTNLKQLPFFYYSDSPCESHGKQVVSDIDYVPLKSATCITRCNLGGAVCRHHANEYR
QYLDAYNMMISAGFSLWIYKQFDTYNLWNTFTRLQSL ENVAYNV VNKGHFDGHAGEAP
VSIINNAVYTKVDGIDVEIFENKTTLPVNVA FELWAKRNIKPVPEIKILNNLGVDIAA
NTVIWDYKREAPAHVSTIGVCTMTDIAKKPTESACSSLT VLF DGRVEGQVDLFRNARN
GVLITEGSVKGLTPSKGPAQASVNGVTLIGESVK TQFNYFKKVDGIIQQLPETYFTQS
RDLEDFKPRSQMETDFLELAMDEFIQRYKLEGYAF EHVYGD FSHGQLGGLHLMIGLA
KRSQDSPLKLEDFIPMDSTVKNYFITDAQTGSSKCVCSVIDLL LDDFVEI IKSQDLSV
ISKVVKVTIDYAEISFMLWCKDGHVETFY PKLQASQAWQPGVAMPNLYKMQRMLLEKC
DLQNYGENAVIPKGIMMNVAKYTQLCQYLNTLT LAVPYNMRVIHFGAGSDKGVAPGTA
VLRQWLPTGTLLVDSDLNDFVSDADSTLIGDCATVHTANKWDLII SDMYDPRTKHVTK
ENDSKEGFFTYLCGFIKQKLALGGSIAVKITEHSWNADLYKLMGHFSWWTAFVTNVNA
SSSEAF LIGANYLGKPKEQIDGYTMHANYIFWRNTNPIQLSSYS LFDMSKFPLKLRGT
AVMSLKENQINDMIYSLLEKGRLIIRENNRVVVSSDILVNN

FIGURE 35 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCGN
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSI FARTLDAANHSI PDLQRAA
VTILDGISEQSLRLVDAMVYTSDLLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV
NKALEMCIDQVTIAGAKLRSLNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT
FLEGDSHDTVLTSEEVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLEIKDKEQ
YCALS PGLLATNNVFRLKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE
KCSVYTVESGTEVTEFACVVAEAVVKTLQPVSDLLTNMGIDLDEWSVATFYLFDDAGE
ENFSSRMVCSFYPPDEEEEDDAECEEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTDNVAIKCVDIVKEAQSA
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQVCVQT
VRTQVYIAVNDKALYEQVVM DYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV
KPKIKACIDEVTTTLEETKFLTNKLLLFADINGKLYHDSQNMLRGEDMSFLEKDAPYM
VGDVITSGDITCVVIPSKKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTL EEAKT
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI
QRKYKGIKIQEGIVDYGVRFFFYTSKEPVASIIITKLNSLNEPLVTMPIGYVTHGFNLE
EAARCMRSLKAPAVVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 35 (B)

QRTELGVFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLSLLSLREVKTIKVFTTVD
NTNLHTQLVDMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFFVLPSDDTLRSEAFE
YYHTLDESFLGRYMSALNHTKKWKFPQVGGLTSIKWADNNCYLSSVLLALQQLEVKN
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHTLLQHANLESAKRVLN
VVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTGVSIPCVCGRDATQYLVQQESSFVMM
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD
VFYKETSYYTTTIKPVSYKLDGVITYTEIEPKLDGYYKKDNAYYTEQPIDLVPQTQPLPNA
SFDNFKLTCSENTKFADDLNQMTGFTKPPASRELSVTFFPDLNGDVVAIDYRHYSASFCK
GAKLLHKPIVWHINQATTKTTFKPNTWCLRCLWSTKPVDTSNSFEVLAVEDTQGMNDL
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN
CAKRLAQRVFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIKNSVKSVAKLCLDA
GINYVKSPKFSKLFTIAMWLLLLSICLGLSICVTAAGVLLSNFGAPSYCNGVRELYL
NSSNVTTMDFCEGSFPCSLCLSGLDSDSYPALETIQVTISSYKLDLTI LGLAAEWVL
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRRATRVECTTIVNGMKRSFYVYANGGRGFC
KTHNWNCLNCDTFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSVAVKNGALHL
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPINVIVFDGKSKCDESASKSASVYY
SQLMCQPILLLDQALVSDVGDSTEVSVKMFDAYVDTF SATFSVPMEKLKALVATAHSE
LAKGVALDGVLSSTFVSAARQGVVDTDVDTKDVI ECLKLSHHS DLEVTDGSCNNFMLTY
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMSLSEQLRKQIRSAACK
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKLMLKATLLCVLAALVCYIVMPV
HTLSIHGTYTNEIIGYKAIQDGVTRDII STDDCFANKHAGFDAWFSQRGGSYKNDKSC
PVVAAIITREIGFIVPGLPGTVLRAIN GDFLHFLPRVFSAVGNICYTPSKLIEYS DFA
TSACVLAAECTIFKDAMGKVPYCYDTNLLEGSISYSELRPDTRYVLMDGSI IQFPNT
YLEGSRVVTTFDAEYCRHGTCERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDAMN

FIGURE 35 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFERRAFGEYNHVVAANAL
LFLMSFTILCLAPAYSFLPGVYSVFYLYLTFYFTNDVSFLAHLQWFAMFSPIVPFWIT
AIYVFCISLKHCHWFFNNYLKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL
PLTQYNRYLALYNKYKYFSGALDTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI
TSAVLQSGFRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDDTVYCPRHVICTAEDMLNP
NYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLLRLKVDTSNPKTPKYKFVRIQPGQ
TFSVLACYNGSPSGVYQCAMRPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHMELP
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNLVLAWLAAVINGDRWFLNRFTTT
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS
TILEDEFTPFDDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLILVQSTQWSLFFF
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLLCLFLLPSLATVAYFNMVYMPASWVMRI
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLNMNVI TLVYKV
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAI VFVCVEYYPLL FITGNTLQCI
MLVYCFLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFMYMNSQGLLPKSSIDA
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVLLSVLQQLRVESSSKLWAQCVQLH
NDILLAKDTTEAFEKMSVLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS
YAAYATAQEAYEQAVANGDSEVVLKKLKKS LNVAKSEFDRDAAMQRKLEKMADQAMTQ
MYKQARSEDKRAKVTSAMQTM LFTMLRKLDNDALNNI INNARDGCVPLNI I PLTTAAK
LMVVVPDYGTYNKTC DGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI
VTALRANS AVKLQNNELSPVALRQM SCAAGTTQTACTDDNALAYYNN SKGGRFVLALL
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGLNNLNRMVL
GSLAATVRLQAGNATEVPANSTVLSFCAFAVDPAKAYKDYLASGGQPI TNCVKMLCTH
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNRVCGVSAARLTPCGTG
TSTDVVYRAFDIYNEKVAGFAKFLKTNCCRFQEKDEEGNLLDSYFVVKRHTMSNYQHE
ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQRLTKYTMADLVYALRHFDEGNCDT

FIGURE 35 (D)

LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFCDAMRDA
GIVGVLTLDNQDLNGNWDYDFGDFVQVAPGCGVPIVDSYYSLLMPILTLTRALAAESHM
DADLAKPLIKWDLLKYDFTEERLCLFDRYFKYWDQTYHPNCINCLDDRCILHCANFNV
LFSTVFPPTSFGPLVRKIFVDGVPFVVSTGYHFRELGVVHNQDVNLHSSRLSFKELLV
YAADPAMHAASGNLLLDKRTTCFSVAALTNNVAFQTVKPGNFNKDFYDFAVSKGFFKE
GSSVELKHFFFAQDGNAAISDYDYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGCIN
ANQVIVNNLDKSAGFPFNKWGKARLYYDSMSYEDQDALFAYTKRNVIPITITQMNLYA
ISAKNRARTVAGVSICSTMTNRQFHQKLLKSIAATRGA TVVIGTSKFYGGWHNMLKTV
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLARKHNTCCNLSHRFYRLANECAQVL
SEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVR
NLQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMILSDDAVVCYNSNYAAQGLVASI
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPYPDPSRI
LGAGCFVDDIVKTDGTLMIERFVSLAIDAYPLTKHPNQEYADV FHLYLQYIRKLHDEL
TGHMLDMYSVMLTNDNTSRYWEPEFYEAMYTPHTVLQAVGACVLCNSQTSLRGACIR
RPFLCCKCCYDHVISTSHKLVLSVNPYVCNAPGCDVTDVTQLYLGGMSYYCKSHKPP I
SFPLCANGQVFGLYKNTCVGSDNVTDFNAIATCDWTNAGDYILANTCTERLKLFAAET
LKATEETFKLSYGIATVREVLSDRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI
GEYTFEKGDYGDVAVYRGTTTYKLVNGDYFVLTSHTVMPLSAPTLVPQEHYVRITGLY
PTLNI SDEFSSNVANYQKVGMQKYSTLQGPPGTGKSHFAIGLALYYPSARIVYTACSH
AAVDALCEKALKYLPIDKCSRIIPARARVECFDKFKVNSTLEQYVFCTVNALPETTAD
IVVFDEISMATNYDLSVVNARLRAKHVYVIGDPAQLPAPRTLTKGTLEPEYFNSVCR
LMKTIGPDMFLGTCRRCPAEIVDTV SALVYDNKLKAHKEKSAQCCKMFYKGVITHDVS
SAINRPQIGVVREFLTRNPAWRKAVFISPYN SQNAVASKILGLPTQTVDSSQGSEYDY
VIFTQTTETAHSCNVNRFNVAITRAKIGILCIMS DRDLYDKLQFTSLEIPRRNVATLQ
AENV TGLFKDCSKIITGLHPTQAPTHLSVDIKFKTEGLCVDIPGIPKDMTYRRLISM
GFKMNYQVNGYPNMFITREEAIRHVRAWIGFDVEGCHATRDAVG TNLPLQLGFSTGVN

FIGURE 35 (E)

LVAVPTGYVDTENNTEFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVR IKIVQMLSDTL
KGLSDRVVFLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV
DWSVEYPIIGDEL RVNSACRKVQHMVVK SALLADKFPVLHDIGNPKAIKCVPQAEVEW
KFYDAQPCSDKAYKIEELFY SYATHHDKFTDGVCLFWNCNVDRYPANAIVCRFDTRVL
SNLNLPGCDGGS LYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVSDID
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT
FTRLQSLENVAYNVVNKGHFDGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV
AFELWAKRNIKPVPEIKILNNLGVDIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP
TESACSSLTVLFDGRVEGQVDLFRNARNGVLITEGSVKGLTPSKGPAQASVNGVTLIG
ESVKTQFN YFKKVDGIIQQLPETYFTQSRDLEDFKPRSQMETDFLELAMDEFIQRYKL
EGYAFEHIVYGDFSHGQLGGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT
GSSKCVCSVIDLLLD DFVEI IKSQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFYP
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN
TLTLAVPYNMRVIHFGAGSDKGVAPGTAVLRQWLPTGTLLVDSDLNDFVSDADSTLIG
DCATVHTANKWDLII SDMYDPRTKHVTKENDSKEGFFTYLCGFIKQKLALGGSIAVKI
TEHSWNADLYKLMGHFSWWTAFVTNVNASSSEAF LIGANYLGKPKEQIDGYTMHANYI
FWRNTNPIQLSSYS LFDMSKFPLKLRGTAVMSLKENQINDMIYSLLEKGRLLI IRENNR
VVVSSDILVNN

FIGURE 36

KSFKTIVESC GNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA
AGVIRSI FARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTSDLLTNSVIIM
AYVTGGLVQQTSQWLSNLLGTTVEKLRPIFEWIEAKLSAGVEFLKDAWEILKFLITGV
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLGEVFIAQSK
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS
FTNGAIVGTPVCVNGLMLLEIKDKEQYCALSPGLLATNNVFRLKGGAPIKGVTFGEDT
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLQPVS
DLLTNMGIDLDEWSVATFYLFDDAGEENFSSRMYSFYPPDEEEEDDAECEEEEEIDET
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN
QFTGYLKLTDNVAIKCVDTVKEAQSANPMVIVNAANIHLKHGGGVAGALNKATNGAMQ
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD
ILLAPLLSAGIFGAKPLQSLQVCVQTVRTQVYIAVNDKALYEQVVM DYLDNLKPRVEA
PKQEEPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTTLEETKFLTNKLLLFADIN
GKLYHDSQNMLRGEDMSFLEEDAPYMGDVITSGDITCVVIPSKKAGGTTEMLSRALK
KVPVDEYITTYPGQGCAGYTL EEAKTALKKCKSAFYVLPSEAPNAKEEILGTVSWNLR
EMLAHAE EARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRFFFYTSKEPVASI
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVVSVSSPDAVTTYNGYLTS
SSKTSEEHFVETVSLAGSYRDWSYSGQRTELGV EFLKRGDKIVYHTLESPVEFHLDGE
VLSLDKLKSLLSLREVKTIKVFTTVDNTNLHTQLVDMSMTYGQQFGPTYLDGADVTKI
KPHVNHEGKTFFVLPSDDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWKFPQVGGLT
SIKWADNNCYLSSVLLALQQLEVKNAPALQE

FIGURE 37

KSFKTIVESC GNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA
AGVIRSI FARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTSDLLTNSVIIM
AYVTGGLVQQTSQWLSNLLGTTVEKLRPIFEWIEAKLSAGVEFLKDAWEILKFLITGV
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLGEVFIAQSK
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVLKNGELEALETPVDS
FTNGAIVGTPVCVNGLMLEIKDKEQYCALSPGLLATNNVFRLLKGGAPIKGVTFGEDT
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLQPVS
DLLTNMGIDLDEWSVATFYLFDDAGEENFSSRMYCSFYPPDEEEEDDAECEEEEEIDET
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN
QFTGYLKLTDNVAIKCVDTVKEAQSANPMVIVNAANIHLKHGGGVAGALNKATNGAMQ
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD
ILLAPLLSAGIFGAKPLQSLQVCVQTVRTQVYIAVNDKALYEQVVM DYLDNLKPRVEA
PKQEEPPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTTLEETKFLTNKLLLFADIN
GKLYHDSQNMLRGEDMSFLEEDAPYMGDVITSGDITCVVIPS KKAGGTTEMLSRALK
KVPVDEYITTPGQGCAGYTL EEAKTALKKCKSAFYVLPSEAPNAKEEILGTVSWNLR
EMLAHAE EARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRFFFYTSKEPVASI
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVVSVSSPDAVTTYNGYLTS
SSKTSEEHFVETVSLAGSYRDWSYSGQRT ELGVEFLKRGDKIVYHTLES PVEFHLDGE
VLSLDKLSLLSLREVKT IKVFTTVDNTNLHTQLVDMSMTYGQQFGPTYLDGADVTKI
KPHVNHEGKTFFVLPSDDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWKFPQVGGLT
SIKWADNNCYLSSVLLALQQLEVKFNAPALQE

FIGURE 38

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSCEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCG

FIGURE 39

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIDYEQN
WNTKHGSGALRELTRELNGGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSCEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERVNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESC

FIGURE 40

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKG FYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 41

MFIFLLFLTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFDNPVIFPKDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFLYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDTWGTSAAAYFVGYLKPTTFMLKYDENGTTITDAV
DCSQNPPLAELKCSVKSEIDKGIYQTSNFRVVPSPGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNVNYKYRYLRHGKLRP
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFTTTGIGYQPYRVVLSFELLNAPA
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLTPSSKRFQPFQFGRDVSDFTDSDVRDPK
TSEILDISPSCSFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGAHEVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNNTIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRDKVEAE
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAICHEGKAYFPREGVFVFNGTSWFITQ
RNFFSPQIITTDNTFVSGNCDVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMTILLCCMTSCCSCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT